A66 Northern Trans-Pennine Project
TR010062

3.4 Environmental Statement Appendix 9.2 Ground Investigation Reports (GIR)

APFP Regulations 5(2)(a)

Planning Act 2008

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A66 Northern Trans-Pennine Project Development Consent Order 202x

3.4 ENVIRONMENTAL STATEMENT APPENDIX 9.2 GROUND INVESTIGATION REPORTS (GIR)

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9.2 Ground Investigation Reports

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Ground Investigation Report Package A Temple Sowerby to Brough

GDMS No: 33015

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1 Introduction

1.1 Scope and Objectives of the Report

1.1.1 As part of the Roads Investment Strategy 2, the United Kingdom Government Department for Transport has provided funding to further develop the business case for dualling the remaining single carriageway sections of the A66 and making other improvements along its length. National Highways (formerly Highways England) is responsible for development of this project, subsequently referred to as the A66 Northern Trans-Pennine Project (A66-NTP).

1.1.2 National Highways is progressing the project in accordance with their Project Control Framework (PCF) and appointed Amey to progress the project through PCF Stage 3 to PCF Stage 7. Amey as Principal Designers have appointed several sub-contract parties. Arup are appointed to work in collaboration with Amey as Designers.

1.1.3 A key deliverable for PCF Stage 3 is a Ground Investigation Report (GIR). Recommendations for its content are given in CD622 Managing Geotechnical Risk (1).

1.1.4 The GIR reports on part of the geotechnical design process as set out in Eurocode 7 (2). It forms part of the Geotechnical Design Report (GDR) and in particular reports on the results of the geotechnical investigation. The geotechnical investigation commenced with the Statement of Intent (SOI) and the Preliminary Sources Study Report (PSSR) defined in CD622. This report, the GIR, makes reference to the PSSR (3).

1.2 Brief Discussion of the Project

1.2.1 The preferred route alignment for the project was defined in a National Highways (formerly Highways England) publication dated Spring 2020, entitled *A66 Northern Trans-Pennine Project Preferred Route Announcement* (PRA). This document is available on their website. Some relevant content from this publication is given below to provide background and context to this current report.

1.2.2 National Highways has been commissioned by the Department for Transport (DfT) to investigate the potential to improve the A66 between M6 junction 40 at Penrith and the A1(M) at Scotch Corner, which is a corridor of 50 miles. This is in order to address the lack of east / west connectivity across the Pennines in the north of England. The principal objective of the proposal is to eliminate all remaining single carriageway sections of the trunk road constructing new dual carriageway sections linking the improvements that have been carried out since the 1970s.

1.2.3 The project is defined as a Nationally Significant Infrastructure Project in terms of the Planning Act 2008. Consequently, a Development Consent Order (DCO) will be required to proceed to construction. The limits of the scheme development will be determined by the 'DCO boundary'.

1.2.4 Figure 1-1 below provides an overview of the whole project route corridor, shown in green between Penrith in the west and Scotch Corner to the east. Within this corridor, Packages A through D were identified. Within each package, separate schemes will be developed by the Designer. Together, these schemes will provide the basis for the DCO submission and subsequent construction. Very broadly schemes to the west of the junction of the A685 at Brough will be developed by Amey (Packages A and B) and those to the east by ARUP (Packages C and D). A collaborative approach has been adopted to maintain consistency of reporting methodologies between the Amey and ARUP design teams. The GIR is a deliverable for PCF Stage 3.

1.2.5 The design development identifies those route sections (A and B) and associated schemes being progressed by Amey as follows:

- M6 Junction 40 to Kemplay Bank
- Penrith to Temple Sowerby (Center Parcs)
- Temple Sowerby to Appleby Kirkby Thore
- Temple Sowerby to Appleby Crackenthorpe
- Appleby to Brough (also referred to as Warcop)

Figure 1-1 A66 Northern Trans-Pennine Project Location

1.2.6 The locations of the schemes are shown in Figure 1-2 below. This particular GIR is focussed on the schemes for **Kirkby Thore to Appleby and Appleby to Brough (Warcop)** . To align this GIR with the corresponding Factual Reports on Ground Investigation, it should be noted that the relevant ground investigation was undertaken as a package, covering all of these schemes. The report is entitled **A66 Northern Trans-Pennine, Package A: Kirkby Thore to Brough, Factual Report on Ground Investigation** (4). At the time of the ground investigation, the Temple Sowerby to Appleby scheme was divided into the two separate schemes as noted above. In the Factual Report on the Ground Investigation, hereafter referred to as "2021 GI", the schemes are assigned acronyms for simplicity:

- Temple Sowerby to Appleby – Kirkby Thore (**KTB**)

- Temple Sowerby to Appleby – Crackenthorpe (**KTA**)
- Appleby to Brough – Warcop (**AB**)

These acronyms provide a system to identify the location of the exploratory holes, with a scheme reference therefore included in each label. For example, BH AB001 for a borehole in the Appleby to Brough – Warcop scheme.

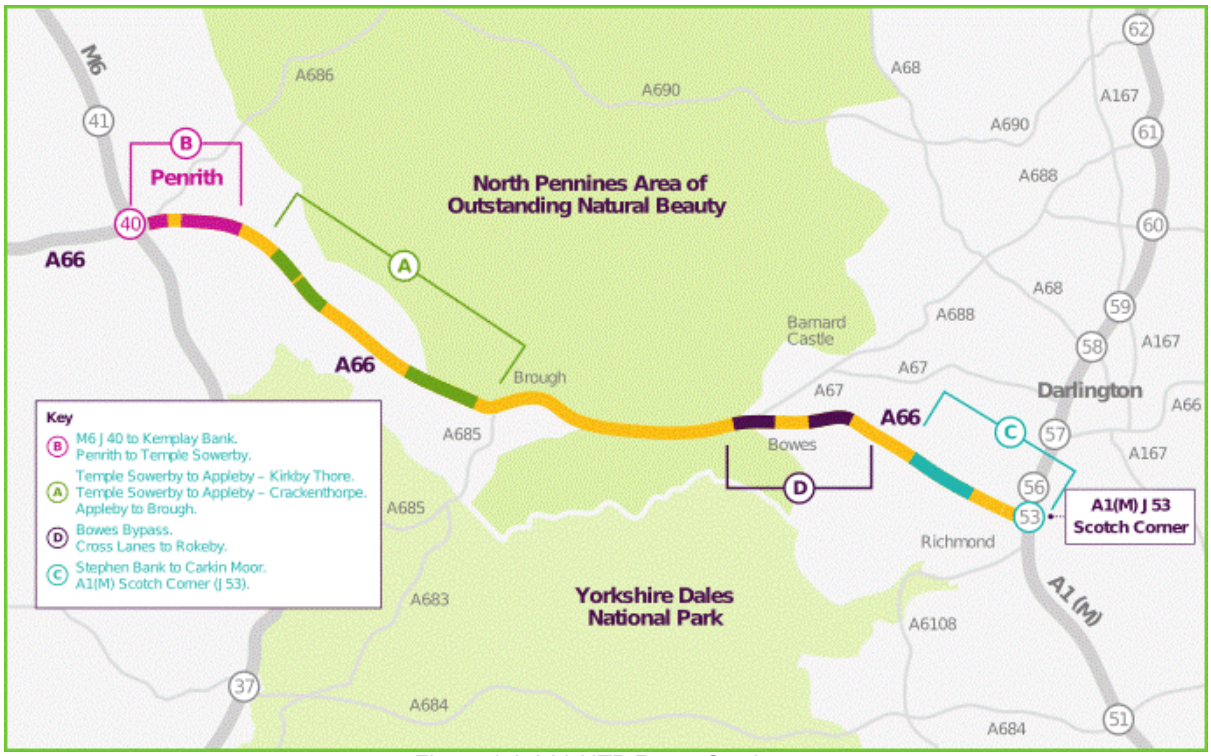

Figure 1-2 A66 NTP Route Sections

1.2.7 Earthworks layout drawings and their associated geological longitudinal sections are provided in Appendix A. These show the limits of the earthworks for the schemes and the geological units encountered, based on the 2021 Ground Investigation. In addition Structures Appraisals Drawings are presented detailing the exploratory positions with particular reference to the relevant structure. The drawing numbers are included in the below table.

1.2.8 These are listed in Table 1-1.

Table 1-1 : Kirkby Thore to Brough – GIR Drawings – Earthworks Layouts and Geological Longitudinal Sections

Drawing Number	Drawing Title
Temple Sowerby to Appleby	
HE56527-AMY-HGT-S0405-DR-CE-000101	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 1 of 11
HE56527-AMY-HGT-S0405-DR-CE-000102	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 2 of 11
HE56527-AMY-HGT-S0405-DR-CE-000103	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 3 of 11
HE56527-AMY-HGT-S0405-DR-CE-000104	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 4 of 11

Drawing Number	Drawing Title
HE56527-AMY-HGT-S0405-DR-CE-000105	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 5 of 11
HE56527-AMY-HGT-S0405-DR-CE-000106	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 6 of 11
HE56527-AMY-HGT-S0405-DR-CE-000107	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 7 of 11
HE56527-AMY-HGT-S0405-DR-CE-000108	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 8 of 11
HE56527-AMY-HGT-S0405-DR-CE-000109	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 9 of 11
HE56527-AMY-HGT-S0405-DR-CE-000110	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 10 of 11
HE56527-AMY-HGT-S0405-DR-CE-000111	Package A - Temple Sowerby to Appleby GIR Drawings Sheet 11 of 11
HE56527-AMY-HGT-S0405-DR-CE-000301	Package A - Temple Sowerby to Appleby Structures Geotechnical Appraisal Drawings Sheet 1 of 2
HE56527-AMY-HGT-S0405-DR-CE-000302	Package A - Temple Sowerby to Appleby Structures Geotechnical Appraisal Drawings Sheet 2 of 2
Appleby to Brough (Warcop)	
HE56527-AMY-HGT-S06-DR-CE-000101	Package A - Warcop GIR Drawings Sheet 1 of 11
HE56527-AMY-HGT-S06-DR-CE-000102	Package A - Warcop GIR Drawings Sheet 2 of 11
HE56527-AMY-HGT-S06-DR-CE-000103	Package A - Warcop GIR Drawings Sheet 3 of 11
HE56527-AMY-HGT-S06-DR-CE-000104	Package A - Warcop GIR Drawings Sheet 4 of 11
HE56527-AMY-HGT-S06-DR-CE-000105	Package A - Warcop GIR Drawings Sheet 5 of 11
HE56527-AMY-HGT-S06-DR-CE-000106	Package A - Warcop GIR Drawings Sheet 6 of 11
HE56527-AMY-HGT-S06-DR-CE-000107	Package A - Warcop GIR Drawings Sheet 7 of 11
HE56527-AMY-HGT-S06-DR-CE-000108	Package A - Warcop GIR Drawings Sheet 8 of 11
HE56527-AMY-HGT-S06-DR-CE-000109	Package A - Warcop GIR Drawings Sheet 9 of 11
HE56527-AMY-HGT-S06-DR-CE-000110	Package A - Warcop GIR Drawings Sheet 10 of 11
HE56527-AMY-HGT-S06-DR-CE-000111	Package A - Warcop GIR Drawings Sheet 11 of 11
HE56527-AMY-HGT-S06-DR-CE-000301	Package A - Warcop Structures Appraisal Drawings Sheet 1 of 3
HE56527-AMY-HGT-S06-DR-CE-000302	Package A - Warcop Structures Appraisal Drawings Sheet 2 of 3
HE56527-AMY-HGT-S06-DR-CE-000303	Package A - Warcop Structures Appraisal Drawings Sheet 3 of 3

1.2.9 For Temple Sowerby to Appleby – Kirkby Thore, the scheme upgrades approximately 3km of the existing single carriageway of the A66 route. The current road skirts the village of Kirkby Thore along its southern edge. From the east side of Temple Sowerby, the new scheme will take the route off of the existing A66 and onto an alignment to the north of the village. The scheme is lowered into a cutting to reduce visual intrusion and noise and then proceeds east for around 2km, crossing the existing side road into Long Marton. The new scheme will provide a bridge to take the Long Marton side road over the new dual carriageway.

1.2.10 For Temple Sowerby to Appleby – Crackenthorpe, the scheme provides around 3.5km of new dual carriageway to the north of the existing A66, between Long Marton side road junction and the western limit of Appleby. The new route is some 750m north of Crackenthorpe before it runs south-eastward to connect with the existing A66 dual carriageway at Appleby. The new scheme is carried by a sequence of earthworks cuttings and embankments to meet environmental and safety constraints.

1.2.11 For Appleby to Brough – Warcop, the scheme commences some 2.5km to the east of Appleby. This scheme uses the existing A66 to provide the eastbound carriageway and provides new construction for the westbound carriageway alongside. The scheme extends for some 8.5km, re-joining the existing A66 dual carriageway on the west side of Brough. The scheme has

sections in cutting and on embankment. Junctions are provided using bridges over the new route or underpasses beneath.

1.3 Geotechnical Category

1.3.1 Management of ground risks (geotechnical risks) to the project is undertaken in accordance with Design Manual for Roads and Bridges (DMRB) document CD622 (1). This document incorporates the requirements of Eurocode 7 (EC7). EC7 is a convenient reference for the underlying British Standard Euronorms BSEN1997:1 (2) and BSEN1997:2 (5) and their United Kingdom National Annexes (6) and (7).

1.3.2 Design in accordance with EC7 requires assignment of a Geotechnical Category to the elements within the project and defines categories 1 to 3.

1.3.3 At this point, all 'geotechnical structures' (earthworks and structures) are expected to fall into Geotechnical Category 2. EC7 provides the following:

- Geotechnical Category 2 should include conventional types of structure and foundation with no exceptional risk or difficult ground or loading conditions.
- Designs for structures in Geotechnical Category 2 should normally include quantitative geotechnical data and analysis to ensure that the fundamental requirements are satisfied.
- Routine procedures for field and laboratory testing and for design and execution may be used for Geotechnical Category 2 designs.

1.3.4 The geotechnical category of each individual geotechnical structure will be considered in the ground summary sections. If a feature requires re-categorization to the higher Category 3, then that will be highlighted. For Category 3 elements, further investigation and/or monitoring requirements (during and post construction) will need to be considered.

1.3.5 Geotechnical Certification requirements are set out in CD622 and those applicable to Category 2 are therefore applicable at this stage of development.

1.3.6 Following development permission under planning rules, the National Highways Project Control Framework will provide the means to appoint Delivery Integration Partners (DIP's) for construction of the schemes. These DIP's will engage with their own designers who will take responsibility for development of the geotechnical design and to present relevant Geotechnical Design Reports to that effect. These designers may re-define the geotechnical category of particular structures and will define any further investigation or testing deemed necessary to satisfy EC7, before proceeding to undertake detailed design.

1.3.7 Where particular complexity leads to classification of Category 3 geotechnical structures, more demanding certification requirements set out in CD622 will apply to the design process.

1.4 Other Relevant Information

1.4.1 The Preliminary Sources Study Report (PSSR) was developed on behalf of National Highways (3) and this is fully considered in section *2 Existing Information* which follows.

1.5 Structure of Report

1.5.1 This particular report presents the GIR for the schemes listed in Section 1.2.6 above.

1.5.2 The main output of the GIR is the ground summary and this will be done for the whole route section between Temple Sowerby and Brough, from west to east. The corresponding geo-environmental models will immediately follow the ground summary. Consequently, the report structure is as follows:

- Temple Sowerby to Brough – Ground Summary
- Temple Sowerby to Appleby – Kirkby Thore – Geo-environmental Model
- Temple Sowerby to Appleby – Crackenthorpe – Geo-environmental Model
- Appleby to Brough – Warcop – Geo-environmental Model

1.5.3 The ground summary and geo-environmental models then form the basis of the Engineering Assessment chapter, which deals with the earthworks and structures for each of the three schemes in the Temple Sowerby to Brough route section.

1.6 Report Limitations

1.6.1 This is a report on the Preliminary Ground Investigation to fulfil the objectives of PCF Stage 3

2 Existing Information

2.1 Sources of Information

2.1.1 Existing information was reviewed for the development of the PSSR. The information is not repeated here, but reference will be made to any relevant content as required.

2.1.2 The PSSR provided general information on the project corridor in terms of topography, hydrology, hydrogeology and geology. Relevant stakeholders were engaged as part of the planning processes. Together with the physical constraints identified by geology and environmental obligations, stakeholder input has shaped the selection of the route options currently under consideration.

2.1.3 The PSSR considered a number of route options at time of writing and presented those in Table 1-1 therein. At that time, the route options were grouped by “Section”. The sections in the PSSR that are relevant to the current GIR are:

- Section 6: Temple Sowerby to Appleby
- Section 8: Appleby to Brough

2.1.4 These route options covered by the PSSR have been subsequently developed. Consequently, references in this GIR will now use the scheme names in Section 1.5 above.

2.1.5 PSSR Section 6 provided information on routes between Temple Sowerby and Appleby. Current work divides this into a western scheme Temple Sowerby to Appleby - Kirkby Thore and an eastern scheme Temple Sowerby to Appleby – Crackenthorpe.

2.1.6 PSSR Section 8 provided information on routes for Appleby to Brough.

2.1.7 Relevant summary information from the PSSR Sections 6 and 8 is provided below for the schemes forming the subjects of this GIR. Bear in mind that the PSSR considered multiple routes, not just the preferred route, so terminology in the following reflects that.

2.2 PSSR Section 6: Summary Information – Kirkby Thore

2.2.1 Routes in this section traverse predominantly agricultural land. The village of Kirkby Thore is influenced by some route options, which pass to the south or north of the village. To the north east of the village, British Gypsum have historical and recent mineworkings in the underlying bedrock. These present potential risks to the stability of works within the zone of influence of any workings. A discussion on historical mining in this area is provided in Chapter 4.8 in Appendix C of the PSSR. A full discussion on the British Gypsum Longriggs mine is given in Chapter 4.9 therein. This identifies workings with potential zones of influence extending towards the northern route option. (This was identified in the Ground Investigation Scoping Report (Amey 2020) and particular exploratory holes were scheduled to investigate aspects of the mine workings).

2.2.2 In addition to mining, the PSSR also identified pertinent aspects of historical land use that can influence proposed highway development. These were summarised in the PSSR as follows:

- Roman Road construction
- Trout Beck watercourse and flood plain
- Eden Valley Branch Railway line
- Midland Railway line
- Disused quarries
- Sewage treatment works
- Various historical wells
- Fuel filling stations
- Substation

2.2.3 For the historical land uses identified and current route options, the main ground risks arise in relation to the deposits in the flood plain of the watercourse (potentially compressible and weak) and in potential contamination associated with the railway operations.

2.2.4 Further constraints to development arise from the Special Area for Conservation (SAC) and Sites of Special Scientific Interest (SSSI) associated with the River Eden and its tributaries, including Trout Beck. The Temple Sowerby Moss SSSI is also mentioned as a potential development constraint, although this is potentially distant from the latest route options.

2.2.5 The geotechnical risk register presented in section 8 includes the relevant risks from the register that was developed in the PSSR, particularly legacy mining at Kirkby Thore. Where the PSSR identified ground risks associated with geological processes and materials, these have been updated taking account of the findings of the ground investigation described in section 3 which follows.

2.3 PSSR Section 6: Summary Information – Crackenthorpe

2.3.1 Routes in this section traverse predominantly agricultural land. The disused railway and Roman road are possible elements impacting route options. Ground risks associated with the former arise mainly from potential contamination. Relevant exploratory holes have been included in the ground investigation scope to allow contamination screening and provision of an appropriate preliminary conceptual site model of contamination risks. For route options impinging on the existing Roman road, the risks associated with original form of construction and associated materials will require consideration in earthworks and pavement design.

2.3.2 The PSSR makes specific reference to a historical landslip adjacent the River Eden and associated extensive engineering works to stabilise the ground. These comprised bored piles

to the south of the existing A66 and soil nails in the cutting slope to the north of the A66. Future development of route options will need to consider the influence of any new works on the existing measures, both in temporary works during construction and the long term influence in the permanent state.

2.3.3 The geotechnical risk register presented in section 8 includes the relevant risks from the register that was developed in the PSSR, particularly the landslip stabilisation near Crackenthorpe. Where the PSSR identified ground risks associated with geological processes and materials, these have been updated taking account of the findings of the ground investigation described in section 3 which follows.

2.4 PSSR Section 8: Summary Information – Appleby to Brough (Warcop)

2.4.1 Routes in this section traverse predominantly agricultural land, between Coupland and Brough. The PSSR identifies that the existing A66 lies along the original Roman road route. There is an existing Ministry of Defence (MoD) training area and firing range to the north of the A66 at Warcop and an MoD training centre in the village of Warcop, to the south of the existing A66. These sites require maintenance of access.

2.4.2 The PSSR confirms the absence of any particular development beyond the MoD facilities and general rural amenity, with the village of Warcop the only current settlement.

2.4.3 As a consequence of the lack of development of the land, the main risks to the scheme will arise from the buildings on the MoD training ground and any potential sources of contamination from those training activities. These are likely to be associated with fuel and munitions storage and will be examined in the preliminary conceptual model, discussed in the geo-environmental sections of this report.

2.4.4 Further constraints arise from the presence of designated sites (SAC) associated with the River Eden, Hellbeck and Swindale Woods and Moor House-Upper Teesdale, Special Protection Area (SPA) of North Pennine Moors and areas of Special Scientific Interest (SSSI) of the River Eden, Appleby Fells and Hellbeck Wood.

2.4.5 There is also a scheduled monument, Warcop Roman Camp, close to the development route. This is deemed to be of high value and of archaeological interest.

2.4.6 The geotechnical risk register presented in section 8 brings forward the relevant risks from the register which was developed in the PSSR. Where the PSSR identified ground risks associated with geological processes and materials, these have been updated taking account of the findings of the ground investigation described in section 3 which follows.

2.5 PSSR – Guidance for Ground Investigation Scoping

2.5.1 For the schemes identified in Section 1.5, the PSSR provided summary information on the geology likely to be encountered. This summary was based on review of available information from the British Geological Survey (BGS) and historical maps at the time. The available information was limited and the PSSR summarised the expected stratigraphy in terms of superficial drift geology (soils) and solid geology (bedrock). For the current schemes, this summary information is briefly described in section 3.2.2.

2.5.2 This information was used to develop the Ground Investigation Scoping Report (8), informing design of the 2021 Ground Investigation.

2.5.3 The Factual Report on the Ground Investigation (4) provides the main source of information for development of the various scheme ground summaries in this GIR.

2.6 Consultation with Statutory Bodies and Agencies

2.6.1 The preliminary design is being undertaken in parallel with production of this GIR. Consultation with relevant stakeholders and agencies has been a sustained part of that process. Records of these consultations are available separately within the submissions for statutory consultation phase and are not reported here.

3 Field and Laboratory Studies

3.1 Geomorphological/Geological Mapping and Topographic Survey

3.1.1 The GISR identified the main sources of existing information, primarily derived from the work undertaken in production of the PSSR. There were no additional geomorphological or geological mapping exercises undertaken prior to the intrusive ground investigation in 2021.

3.1.2 Topographic surveys of the route options were underway in 2021, but were incomplete at the time of writing of this report. For the ground investigation undertaken in 2021, the as-drilled and as-dug positions of the exploratory holes were captured, with National Grid Eastings and Northings to 0.1m accuracy and elevation above Ordnance Datum to 0.01m accuracy.

3.2 Ground Investigations

3.2.1 For the schemes identified in Section 1.5, the PSSR provided summary information on the geology likely to be encountered. This summary was based on review of available information at the time, from the British Geological Survey (BGS) and historical maps. The available information was limited and the PSSR summarised the expected stratigraphy in terms of superficial deposits (soils) and solid geology (bedrock). This information was reviewed in preparation of the GISR.

3.2.2 For the current schemes, the anticipated geology consisted of glacial drift deposits underlain by sedimentary rocks. Local areas of made ground were present, associated with road building and other infrastructure development. The drift deposits were described as Devensian till or diamicton, comprising clay, sand, gravel and boulders with a wide range of sizes. The bedrock was described as sandstones, mudstones and shales of the Penrith Sandstone Formation and Eden Shales Formation. Within the mudstones of the Eden Shales, bands of gypsum were recorded.

3.2.3 The GISR was developed to inform design of the 2021 Ground Investigation. For the schemes identified in Section 1.5 (covered by ground investigation “Package A”), a specification was developed and a Contract procured for its execution. For Package A, the contract was awarded to Structural Soils Limited (SSL).

3.2.4 The purpose of the investigation was fully described in the contract and in particular the following requirements were defined:

- Determination of the geological (stratum) sequence.
- Assessment of ground water levels (hydro-geology) across the whole development area.
- In situ testing to assess permeability of superficial (soil) geology.

- In situ testing to assess ground strength and stiffness, with particular reference to road pavement design.
- Provision of soil and rock samples to enable geotechnical and geo-environmental parameters and properties to be derived for design.
- Screening of soil and water to assess geo-environmental constraints and design of ground contamination mitigation.

3.2.5 To ensure compliance with statutory requirements, this investigation was undertaken with an archaeological watching brief. A separate archaeological report was produced and this is included in Appendix G of the Factual Report.

3.2.6 The investigation provides a suitable level of ground information to develop the scheme ground summary in this GIR and inform the preliminary design required at Project Control Framework (PCF) Stage 3 (Project Control Framework, National Highways formerly Highways England, 2018). The objective of this stage of investigation is to provide enough information, commensurate with preliminary design, to identify levels of ground risk that can then be suitably priced in the design and build procurement stage. Future detailed design in that stage will require more specific targeted ground investigation, particularly when foundation locations for structures are finally fixed.

3.2.7 Subsequent to completion of the fieldwork for the investigation, stakeholder consultations led to review of sections of the route options. As a result, in some areas there is a need for further investigation at a later stage, to ensure that future detailed design complies with the recommendations of Eurocode 7.

3.3 Description of the Fieldwork

3.3.1 The investigation for Package A was undertaken by SSL between 15th February 2021 and 28th April 2021.

As noted earlier in Section 1.2.6, three schemes were covered by the GI for Package A and acronyms were adopted for the scheme names, namely KTB (Kirkby Thore Bypass), KTA (Kirkby Thore to Appleby, Crackenthorpe) and AB (Appleby to Brough). These acronyms were then used as a suitable prefix to identify exploratory holes for each scheme. Exploratory holes were drilled boreholes (BH or SD), window sampling boreholes (WS) or trial pits excavated by hand (HP) or machine (TP). Exploratory holes were initially numbered from west to east commencing with 001 for each of the schemes. Consequently, a logical exploratory hole numbering system was devised to use these three elements, for example “BH KTB001” and “TP KTB001” to identify the initial borehole and trial pit in the Kirkby Thore Bypass scheme.

3.3.2 Exploratory hole types and locations were chosen to provide sufficient information for preliminary design, commensurate with PCF Stage 3. At this stage, the ground investigation

is required to enable assessment of the materials present, classification for use in earthworks and determination of parameters for preliminary design. At a future stage, detailed ground investigation will be required to finalise design parameters at structures. Further testing of proposed treatment methods for earthworks materials (for example, lime stabilisation) will also be required for detailed design.

3.3.3 Site condition surveys were undertaken, prior to exploratory hole formation between, 1st and 12th February 2021. Further surveys were undertaken following the works to confirm acceptable reinstatement of damage to ground and access routes. These were done between 29th April and 18th May 2021, together with a topographic survey of the as-drilled/as-dug locations of the exploratory holes.

3.3.4 Table 3-1 provides a summary of the fieldwork undertaken for Package A.

Table 3-1 : Summary of Fieldwork, Package A

Exploratory Hole Type	Number	Maximum Depth (m)	Comments
Cable Percussion	76	12.45	
Cable Percussion borehole extended by rotary coring	20	40.55	
Hand Excavated Inspection Pit	1	0.90	Replaced originally intended cable percussion borehole BH KTB016.
Dynamic Sample Borehole with rotary-follow on rotary coring	1	42.50	BH KTB021 mining
Machine dug trial pits	99	3.80	
Window Sample Boreholes	3	4.45	WS KTA001, WS KTA002 and WS AB007.

3.3.5 Formation of exploratory hole types listed in Table 3-1 was accomplished by a variety of plant and equipment and full details are given on individual exploratory hole records.

3.3.6 The majority of exploratory holes were completed in their target locations. Where land access routes, ground condition or traffic management presented particular challenges, exploratory holes were moved locally to appropriate locations.

3.3.7 In addition to the work already described, ongoing monitoring and environmental sampling continued beyond the main contract site operations period. From wells installed in boreholes during the site operations, gas and groundwater levels were recorded on four separate visits, undertaken between 26th May 2021 and 23rd June 2021. Water samples were also taken from five locations during the second visit.

3.4 Results of In Situ Tests

3.4.1 In situ testing formed a part of the investigation and is summarised in Table 3-2. Test results are reported in Appendix C of the 2021 Ground Investigation (2021 GI).

Table 3-2 : Summary of In Situ Testing, Package A (Kirkby Thore to Brough)

Quantity	Type of In Situ Test	Comments
476	Standard Penetration Test (SPT)	Carried out in all boreholes.
456	Hand Shear Vane (HSV)	Carried out in trial pit excavations.
47	Plate Load Tests	Carried out in selected trial pit excavations.

Quantity	Type of In Situ Test	Comments
9	Light Weight Deflectometer	Carried out in selected trial pit excavations.
15	Soakaway (Infiltration) Testing	Carried out in selected trial pit excavations.
25	Photo-Ionisation Detector (PID) measurement of volatile hydrocarbons	Measurement on selected soil samples.

3.4.2 Standard Penetration Tests (SPTs) were undertaken in all boreholes at vertical intervals of 1m to 2m. These tests provided information on the relative density (state of compaction) of granular materials encountered during drilling. Each test provided a value, known as N-value (SPT-N), based on the number of blows needed to penetrate a standard depth in a given stratum, using a standard mass hammer. Loose to very dense strata were identified throughout the site, based on correlation between N-value and relative density set out in BS 5930 (9). These are discussed later with regard to determination of ground summaries and material parameters.

3.4.3 SPTs are also used in a number of correlations to determine material stiffness and strength in both fine-grained and coarse-grained soils. These are discussed later with regard to determination of ground summaries and material parameters.

3.4.4 Hand shear vane (HSV) tests were used during excavation of trial pits, to indicate both the peak and the residual undrained shear strength of fine soils. Taken together with relevant laboratory testing, these results are used to determine soil strength and stiffness, discussed later in this report.

3.4.5 Plate Load Tests (PLT) were undertaken in accordance with BS1377 Part 9 (10). This test was undertaken, generally at 0.5m depth in machine excavated trial pits. The purpose of the test was to evaluate a subgrade stiffness modulus in accordance with original guidance in the Design Manual for Roads and Bridges (DMRB), IAN 73/06 (11). Although this guidance is withdrawn and superseded by later DMRB guidance (12) the method of calculation of pavement stiffness in IAN73/06 is still valid. IAN73/06 provides a method for calculation of CBR (California Bearing Ratio) using the plate bearing test in its paragraphs 7.13 to 7.15 inclusive. Although this method has known limitations, the results can be compared with results from dynamic tests such as the Falling Weight Deflectometer (FWD) or Light Weight Deflectometer (LWD). The latter were also undertaken as part of the investigation and are described below.

3.4.6 Light Weight Deflectometer (LWD) tests were undertaken in selected trial pits in the Appleby to Brough (Warcop) section. Testing was conducted using the Dynatest 3032 LWD in accordance with ASTM E2583-07 (13). This provided values for subgrade surface stiffness modulus which provide the basis for pavement foundation design. Results are considered in the relevant ground summaries later in this report.

3.4.7 Infiltration testing was undertaken in selected trial pit excavations. Testing was undertaken in accordance with the method set out in BRE Digest 365 (14). The purpose of the testing was to determine the in situ soil permeability. This information would provide the drainage designer

with infiltration rates to guide the design of drainage systems for the schemes. In general, these tests indicated very low permeabilities in the soil deposits within the first 2m below existing ground level. The impact of these is discussed with regard to the ground summaries later in this report.

3.4.8 Where hydrocarbon odours were noted, PID (Photo-ionisation Detector) was used to determine the concentration of volatile hydrocarbons in the soil. This information is considered in the geo-environmental review of the ground investigation and described in the relevant section in this report.

3.5 Drainage Studies

3.5.1 The 2021 GI did not include any significant drainage studies, although some infiltration testing was done to assess the soakaway potential of the near surface soil deposits as noted earlier. In due course, this information will be available to the drainage designer to inform potential sites for detention ponds or 'SuDS ponds' (SuDS – Sustainable Drainage Systems). Infiltration rates and existing groundwater levels have been determined in the 2021GI and these will be available to future drainage designers.

3.5.2 For preliminary geotechnical design, the 2021 GI has indicated the presence of fine soils in some areas. These are discussed further in the later ground summaries, but such materials are known to be susceptible to groundwater and surface water actions. As a result, it is expected that where existing topography falls towards cuttings all cutting slopes will require protection by crest drainage. The extent of the drain runs will be driven by the ground topography and generally required where the ground falls towards the crest of the cutting. Toe of cutting drainage will be provided in accordance with the Specification for Highway Works Clause 500.

3.6 Geophysical Surveys

3.6.1 A geophysical survey was commissioned as a separate study within the 2021 GI. SSL instructed RSK Environmental Limited to undertake the investigation as a sub-contract. The survey was conducted as a trial with a view to extending the surveys should the trial be satisfactory.

3.6.2 RSK provided a report on the findings entitled "A66 Kirkby Thore – Trial Survey" (15). The report is included in Appendix B. The purpose of the report was to assess the presence, depth, nature and sub-surface extent of mine workings associated with the mineral extraction of gypsum at Kirkby Thore.

3.6.3 Two geophysical techniques were used: electrical resistivity tomography (ERT) and seismic refraction and reflection.

3.6.4 All techniques indicated anomalies in the data which were variously interpreted as the Penrith Sandstone and Eden Shale Formation bedrocks, a potential vertical fault in the centre of the survey area and a potential air void. The latter was interpreted as a potential mineworking void in the gypsum mine.

3.6.5 The investigation was commissioned to attempt to delineate the southern extent of the mineworkings. The workings would typically influence an area at the surface, depending on the thickness of the worked seam or roadway and the depth of such seam/roadway beneath the existing ground surface.

3.6.6 It was expected that the mineworkings would be flooded, given cessation of operations several years prior to investigation. Although the survey indicated an air void, this was inconsistent with this expectation.

3.6.7 The geophysical survey was therefore inconclusive with respect to the primary goal and RSK recommended further intrusive investigation and further ERT. Later intrusive drilling in the 2021 Ground Investigation confirmed the presence of workings and their flooded status as expected. However, the limit of workings was not explicitly determined and the influence of this has been added as a residual risk in the register in section 8.

3.7 Test Pile Results

3.7.1 Piling design will be required where structure foundations cannot adopt a shallow foundation type. These aspects will be determined at detailed design stage. At that stage, it is recommended that the requirements of Eurocodes are fully applied and that adequate pile testing is mandated by the design. It is recommended that fully instrumented preliminary piles are constructed and tested at each structure location. These tests are likely to be static, sustained load tests. Further dynamic load tests are recommended to supplement the static testing on an appropriate sample of piles during construction, at the frequency recommended in the Eurocodes.

3.7.2 Construction and testing of preliminary piles for piling solutions is expensive and is often an area where design and build organisations look to minimise cost. Industry experience has shown this to be ill-advised and a suitable mechanism is vital to ensure that suitable testing is in place for any piling proposals. This can typically be accommodated by specific inclusion in the client's requirements.

3.8 Other Field Work

3.8.1 The Factual Report on the Ground Investigation was produced in July 2021. To ensure compliance with statutory requirements, this investigation was undertaken with an archaeological watching brief, as noted earlier.

3.8.2 Laboratory Investigation

3.8.3 The 2021 GI included a programme of laboratory testing. This was designed and scheduled by Amey to collect information on samples of soils, bedrock and groundwater.

3.8.4 Testing was scheduled in order to classify the soils and rock, typically comprising particle size distribution (PSD), plasticity limits (Atterberg Limits) for fine soils and in the case of rock samples, unconfined compressive strength (UCS) to assess rock grade.

3.8.5 In addition to basic classification tests, a range of tests was undertaken to assess the suitability of the various soils and rocks for re-use as engineering fills. These included Dry Density and Moisture Content Relationships (Compaction), Moisture Condition Value (MCV)

and re-moulded undrained shear strength, the latter from laboratory triaxial tests to supplement the hand shear vane tests undertaken during site operations.

3.8.6 For general stability assessments the short and long-term shear strength of the various soils was assessed. This was done using small and large shearbox tests for granular materials and triaxial testing in the case of the fine soils. For the latter, undrained triaxial tests were undertaken to determine short term shear strength. For the long term (effective) strength in the fine soils, consolidated undrained tests with pore pressure measurements were undertaken.

3.8.7 To understand compressibility and settlement characteristics of the soils, laboratory oedometer tests were undertaken on selected samples.

3.8.8 Surface stiffness characteristics were assessed for soils at expected road pavement foundation levels. This was done using the California Bearing Ratio (CBR) test in the laboratory, supplementing the in situ testing undertaken in the site operations – Plate Bearing Test (PBT) and Light Weight Deflectometer (LWD).

3.8.9 During the laboratory testing period, it is common for Abortive Test Notices (ATNs) to be issued. ATNs are raised when one of more issues mean that the requested test cannot be undertaken in accordance with all aspects of the relevant test standard. For Package A of the 2021 GI, 150 laboratory test schedules were issued for soil testing and 20 for rock core tests. Each of these requested a range of tests for one or more exploratory holes. In response, 334 ATNs were issued by the testing laboratory.

3.8.10 ATNs were predominantly raised where the mass of individual soil samples was less than the minimum required by standard for a fully representative PSD test. Given the nature of the materials, the presence of individual large gravel and cobble particles in a bulk soil sample could easily result in the requirement for a large sample mass in order to be fully representative of the stratum. This large sample mass would then be systematically split until a sub-sample was produced, with the full range of particle sizes in proportions expected in the stratum in the field. Initially, where this criterion was not met, the laboratory raised an ATN and Amey accepted the reason and dismissed the test. However, as the investigation continued, it became evident that this issue was present in many samples. Given the glacial and fluvio-glacial nature of the materials in this area, this issue was unavoidable and a decision was made to proceed with ‘Non-standard’ tests where individual large particles indicated insufficient sample mass to meet standard. It was deemed reasonable to do this, given the behaviour of mixed soils of these types is known to be controlled by the overall matrix, which is generally the fine fractions (silt and clay). In most cases, excluding the few very large particles resulted in a sample mass which was representative of the gravel, sand, silt and clay matrix which dictates behaviour when working with the materials in the field at scale.

3.8.11 Some ATNs were raised with respect to requests for compaction tests, citing inadequate sample mass. For this type of test, upwards of 5 sub-samples are compacted in a mould at a range of water contents and the compacted dry density is determined. The minimum sample mass for 5 sub-samples was not available on occasion. In such cases re-use of a single sample is permitted by the standard. This does however require the soil particles to be 'non-crushable' when undergoing compaction in the mould. Some ATNs were therefore raised because of the issues noted and again Amey initially accepted the reason and dismissed the tests. As the investigation continued, this issue persisted and a decision was made to undertake non-standard tests where the laboratory flagged 'crushable' material. In essence, the 'crushable' material was agglomerated sand forming gravel sized particles, typical in glacial deposits. A decision was therefore made to proceed with 'non-standard' compaction tests where 'crushable' material was cited, on the basis that the behaviour of such agglomerated particles would not unduly influence the outcome of the tests.

3.8.12 ATNs were raised where PSDs were requested using both sieve analysis and sedimentation. The latter is required to determine particle size from silt size down to clay size. For glacial materials present, this can be a significant proportion of the overall material matrix. Where materials were described on preliminary logs as containing silt and/or clay, a sedimentation test was generally scheduled. On occasions, the material passing the silt size in the sieve analysis was less than 10% and the relevant standard recommends that the sedimentation is not required in these cases. For these ATNs Amey dismissed the sedimentation test request.

3.8.13 The MCV test is a compaction assessment test and is suitable for a wide range of soils with a minimum fine grained portion. The test is not recommended for materials which are predominantly coarse and the test defines a grading zone where this is the case. A number of ATNs were raised for this reason and dismissed accordingly by Amey.

3.8.14 For compressibility assessment, one-dimensional oedometer consolidation tests were scheduled on fine soils. This test requires a relatively thin sample, so the presence of gravel sized particles generally prevents a successful test. A number of samples presented significant gravel content and ATNs were raised. Where Amey could not find a suitable alternative sample, the tests were dismissed.

3.8.15 Triaxial testing was scheduled on tube sample extracted from fine grained soils, on the basis of descriptions on preliminary logs. On some occasions, on extrusion of the samples in the laboratory, the materials were found to have high coarse material content which rendered them unsuitable. Again alternative samples were sought where possible and the scheduled tests were dismissed. The difficulty in obtaining tube samples was due to the granular nature of the glacial tills, so a number of shearbox tests were scheduled where granular tills were prevalent. In general the shearbox tests were undertaken with few ATNs raised and those

that were raised were due to the presence of coarse gravels. This test is not suitable for very coarse soils.

3.8.16 At time of writing National Highways has approved a further phase of ground investigation to help inform the preliminary design. As part of this, a large scale material re-use assessment is planned, comprising trial pits and bulk sampling at a scale that will resolve the sample mass issues noted above for some of the testing. The main objective is to determine the suitability of the as-dug material for use as fill. As-dug materials from glacial and fluvio-glacial tills can present difficulties in handling, transportation, placing and compaction in earthworks fill areas. The Specification for Highway Works (16) refers to suitable and unsuitable materials. This is referred to as SHW subsequently in this report. For the planned material re-use assessment, the glacial tills and fluvioglacial deposits can have high water content which makes compaction difficult and this is a primary reason for classification as unsuitable. The objective of the testing is to determine which cuttings and borrow areas can provide suitable fills for the embankment areas and how much is suitable 'as-dug' and how much needs to be treated to render it suitable. Typically this is done by addition of lime or both lime and cement, to drive off excessive water content and to take advantage of reactions with the lime and/or cement to form cementitious compounds which stabilise the soils. A programme of sampling, preparation and testing at various concentrations of lime and/or cement will be designed to determine the re-use capability. This is a well-known approach and given the environmental constraints and the need for sustainable construction, will be a significant study in the forthcoming second phase ground investigation.

3.8.17 This further phase of investigation will allow inclusion of alternative techniques such as continuous soil coring to try to obtain suitable samples for undrained and drained shear strength determination in the cohesive materials at depth in cuttings. Further laboratory CBR testing at depth will also be enabled by such sampling, in areas where tube sample recovery was difficult in the 2021 GI.

3.8.18 ATNs were raised in relation to testing scheduled on rock cores. Where UCS tests were scheduled, the laboratory examination often exposed fractures or features which made the samples unsuitable for this test. Where this was the case, Amey generally scheduled Point Load Index Tests (PLT) on the original sample as an alternative.

3.8.19 Where PLTs were scheduled, ATNs were raised where the sample was generally too weak for the test, confirming the experience of the field drilling and the field geologists' logging as weak or very weak rock. Amey sought alternatives for test where possible, but significant lengths of the recovered core had frequent bedding fractures and were also unsuitable. For the proposed further phase there is opportunity to explore the possibility of specific drilling approaches which may help recover cores in these weak rocks for a more comprehensive

assessment of UCS in rock, particularly at structure locations which are subject to design revisions.

3.8.20 Overall the programme of laboratory testing delivered a significant amount of information to inform the preliminary design. Issues in connection with ATNs and unsuitable samples led to some reduction in the available information, as a significant amount of scheduled testing could not be completed. Going forward, the second phase of investigation will help to fill remaining information gaps in general and will refine the material suitability assessment.

3.9 Description of Tests

3.9.1 Full details and summaries of test results are given in the Factual Report on Ground Investigation (4)

3.10 Factual Report and Data

3.10.1 The Factual Report on Ground Investigation is provided separately. The report comprises an electronic PDF (Portable Document Format) and accompanying digital data. The digital data is a text file conforming to the current standard (AGS 4.1) defined by the Association of Geotechnical and Geoenvironmental Specialists (AGS) .

4 Temple Sowerby to Brough – Ground Summary

4.1 Introduction

4.1.1 This section provides an overall summary of the expected materials below the two currently proposed A66 NTP schemes between Temple Sowerby and Brough. These schemes are:

- Temple Sowerby to Appleby
- Appleby to Brough – Warcop

4.1.2 Temple Sowerby to Appleby combines the two schemes (Kirkby Thore and Crackenthorpe) which are now treated as one scheme in the design development going forward. The ground summary considers the materials and parameters derived from the ground investigation and is reported in section 4.5.

4.2 Material Properties – Methodology

4.2.1 To ensure consistency in each of the A66 NTP GIRs, the following methodology has been applied in assessment of material properties in each ground model development. The methodology describes the test methods, analytical methods and relationships from relevant research that have been used as necessary to arrive at representative parameters for preliminary design.

Bulk Density

4.2.2 Bulk density measures the mass of in situ soil in a unit volume. Values for this property have been assigned following review of results from the 2021 GI. Where appropriate, results from any historical ground investigations have also been considered. These bulk density values have then been assessed with guidance from standards (17).

Classification

4.2.3 For soils, classification of each stratum was undertaken using results of tests for Natural Water Content (NWC), Atterberg Limit Tests, Particle Size Distribution (PSD) and Particle Density test results.

4.2.4 For rocks, the classification is limited to type of deposit and assessment of compressive strength. The latter uses results of unconfined compressive strength (UCS) testing or correlation with the Point Load Index (PLI).

Shear Strength – Fine (Cohesive) Soils - Undrained

4.2.5 Fine soils have a tendency to natural aggregation of particles and historically this property was referred to as cohesion and soils of this type were “cohesive”. Use of the term “cohesive” is now historical and current practice is to refer to “fine” soil.

4.2.6 Fine soils do not drain quickly and on shearing exhibit an apparent “cohesion” or undrained shear strength. Measured values of undrained shear strength (Cu) have been obtained from in situ tests, laboratory hand shear vane measurements and laboratory unconsolidated undrained triaxial tests (UU).

4.2.7 Where appropriate, Cu has also been assessed from SPT-N value using a relationship developed by Stroud and Butler (18)

4.2.8 Stroud and Butler determined a relationship between plasticity index, SPT-N (N) and shear strength Cu, as follows:

Cu = f1 * N (kPa)

In the relationship, f1 is a factor which varies with plasticity index (PI) as indicated in the figure below (extracted from the literature):

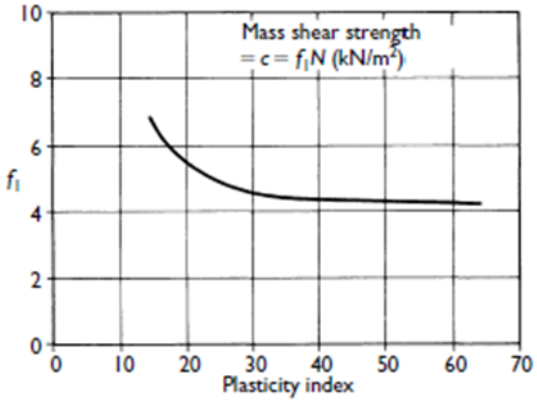

Figure 4-1 Shear Strength relationship with SPT-N and PI (Stroud and Butler, 1975)

Shear Strength – Fine (Cohesive) Soils – Drained

4.2.9 The true frictional behaviour of fine soil relies on full drainage being permitted (using a very small rate of loading). This is impractical and it is usual to use a laboratory method that allows separation of stresses on the soil skeleton (effective stress) and those carried by the soil and pore-water as a whole (total stress). This can be done with triaxial testing where pore-pressure measurements are recorded during testing.

4.2.10 Measured values of the effective angle of shearing resistance and any associated effective cohesion have thus been obtained from consolidated undrained triaxial tests (CU) with pore pressure measurement (19). (19)

4.2.11 Where appropriate, the angle of shearing resistance has also been assessed using the following equation from BS8002:2015 (17):

$\phi'cv = (42° - 12.5 \log10(I_P))$

where:

ϕ'cv is the soil's constant-volume angle of shearing resistance

I_P is the Plasticity Index (PI), entered as a percentage.

4.2.12 The constant-volume angle of shearing resistance is determined by this expression. It should be noted that the in situ materials will exhibit initial peak frictional resistance that will be higher than this, before falling to the constant-volume value.

4.2.13 In the absence of comprehensive testing data, the constant volume effective cohesion c' has been assumed as zero as per guidance in BS8002:2015. Values of c' obtained from consolidated undrained triaxial testing (with pore pressure measurement) have however been presented, where recorded.

Shear Strength – Granular Soils

4.2.14 For granular soils, permeability is generally high enough to permit drainage of water and prevent pore-pressure build up during loading. Hence the total stresses applied are equivalent to the effective stresses. Consequently, direct shear tests are generally used to assess effective angle of internal friction in granular soils. These tests tend to be limited to sands and medium gravels and use small and large shearbox apparatus respectively. The peak effective angle of friction (ϕ') is generally reported. Limitations of the test often lead to an effective cohesion (c') being reported, although it is generally ignored in a truly granular material test result.

4.2.15 Known correlations have been used to determine shearing resistance where appropriate. For granular soils, the well-established correlation (20) has been used (Figure 4-2). This relates in situ standard penetration tests values of SPT-N and internal angle of shearing resistance.

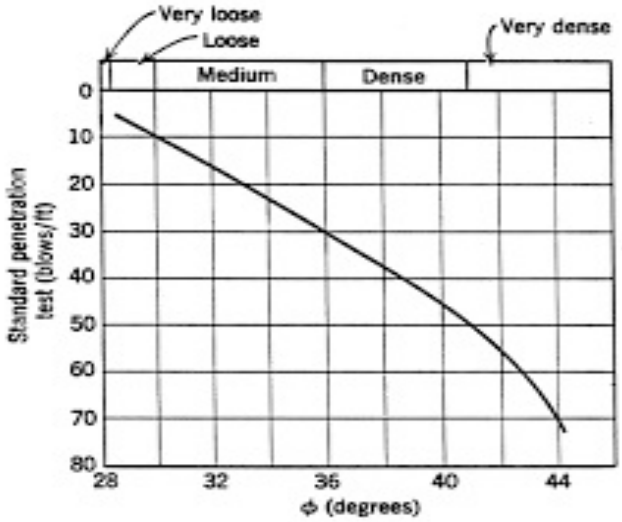

Figure 4-2 Peck et al, relationship between SPT-N and internal angle of friction

4.2.16 BS8002 also provides methods of estimation of the "critical state" (constant volume) effective angle of shearing resistance. This is determined from assessment of the angularity of the particles and the particle size distribution as follows:

ϕ'critical = 30° + ϕ'ang + ϕ'PSD

where

ϕ'ang is the contribution from the angularity of the particles

ϕ'PSD is the contribution from the soils' particle size

4.2.17 As noted above for fine soils, this method estimates the critical state angle, not the peak value.

Rock Strength

4.2.18 Rock strength (UCS) has been assessed based on descriptions given by the geologist on the exploratory hole log. The figure below presents an extract from BS5930 (9) relating UCS and the descriptive strength terms on the logs.

Term for use in field or based on measurement	Definition for field use	Definition on basis of Unconfined Compressive Strength measurements MPa
Extremely weak	Can be indented by thumbnail. Gravel sized lumps crush between finger and thumb.	0.6 – 1.0
Very weak	Crumbles under firm blows with point of geological hammer. Can be peeled by a pocket knife.	1 – 5
Weak	Can be peeled by a pocket knife with difficulty. Shallow indentations made by firm blow with the point of geological hammer.	5 – 25
Medium strong	Cannot be scraped with pocket knife. Can be fractured with a single firm blow of geological hammer.	25 – 50
Strong	Requires more than one blow of geological hammer to fracture.	50 – 100
Very strong	Requires many blows of geological hammer to fracture.	100 – 250
Extremely strong	Can only be chipped with geological hammer.	>250

NOTE Based on BS EN ISO 14689-1:2003 4.2.7, Table 5.

Figure 4-3 Field descriptive terms for rock strength and relationship with unconfined compressive strength (BS5930)

4.2.19 Laboratory UCS tests have been undertaken on representative core samples where possible, during the 2021 GI.

4.2.20 Point Load Index tests have also been used to assess rock strength, with the standard relationship:

UCS = C * Is(50) MPa

Where Is(50) is the point load index and C is a constant relating to published or site-specific information. The latter is usually only feasible when large numbers of both tests are undertaken in the same strata for a site. For the 2021 GI this was not the case and appropriate values have been estimated as follows, based on (21):

- Mudstone: C = 10
- Sandstone and limestone: C = 20

Compaction Characteristics

4.2.21 Compaction characteristics were assessed using standard laboratory tests (22). These comprised dry density/moisture content relationship determination and Moisture Condition Value (MCV).

4.2.22 The SHW places emphasis on achievement of adequate compaction of soils used as fill materials. This can be measured by determining the maximum dry density that can be achieved for soil from a particular area and stratum. The moisture content of the soil at the maximum dry density is the optimum amount. By definition, the relationship covers a range of moisture contents both on the dry side and the wet side of this value. Depending on fill end use and plant, the SHW indicates an acceptable level of compaction, on an “end-product” or “method-related” basis and the range of moisture contents that are likely to achieve this requirement.

4.2.23 In addition to the standard compaction test described, the MCV test has been developed as a more rapid means of determining material suitability in the field, without the need to wait for moisture content determinations. Prior to MCV, field compliance testing meant that volumes of fill could potentially be placed and compacted outside the acceptable moisture content range, failing the specification and then requiring mitigation and in situ testing processes. The MCV test in the field does not rely on moisture content determination and instead an MCV value range is used to determine acceptability at the point of deposition in the field.

4.2.24 In order to determine the suitable MCV value range for different materials on a scheme, suitable MCV calibration and single point MCV determinations are used. For the schemes covered by this GIR, there are mixed soils present and in general the fine fraction of these mixtures determines behaviour of the overall matrix, even though the granular fraction may be up to 85% of the mixture. For these soils, the MCV is well-suited and single point and calibration tests have been undertaken. These are discussed in the scheme wide ground summary following.

4.2.25 For granular soils, the MCV test is less relevant as these have a structure which generally allows drainage during compaction. The MCV test procedure identifies PSDs that will not be suitable for the MCV test and the standard compaction test is the recommended route to suitability determination for granular soils.

4.2.26 Both single value MCV (natural moisture content) and MCV-calibration (on a range of moisture contents) were scheduled as part of the 2021 GI.

Stiffness and Compressibility

4.2.27 Material stiffness and compressibility characteristics are directly related.

4.2.28 For fine soils, one-dimensional oedometer consolidation tests have been undertaken as part of the 2021 GI. These allow assessment of expected settlement characteristics (both magnitude and duration) and the corresponding stress/displacement (stiffness) behaviour. These tests allow determination of both the coefficient of volume compressibility (m_v) and compression index (Cc) . The former parameter varies with stress, so the individual ground summary sections will suggest derived values relevant to the increase in stress. This increase will be brought about by new embankment weight and will increase with increasing embankment height. Use of the Compression Index (Cc) is not stress related, however determination of the best fit straight line section of the plotted test results can occasionally be problematic.

4.2.29 In addition to derivation of m_v using the oedometer test, correlation with SPT-N value is common (23) using the form:

m_v = 1/(f2 * N) where factor f2 is a function of Plasticity Index (PI)

Later ground summaries may include relevant application of this relationship for comparison with values determined from oedometer testing. This can then be used as a correlation in areas where specific oedometer tests have not been undertaken.

4.2.30 Regarding the stiffness modulus, for fine soils this is initially high (undrained condition) as pore pressures develop in response to immediate load. Over time, the pore pressures dissipate and the stiffness in this final drained condition is lower. In the oedometer test, it is possible to evaluate the drained stiffness for a given pressure increment, allowing this to be related to the pressure imposed by new embankment construction or foundation load. For any value of m_v, the drained stiffness, E' is determined from:

$E' = 1 / m_v$ (24)

4.2.31 It is then common to use a back-analysis to assess the initial undrained stiffness modulus. Typically, an empirical relationship is used, such as the following (24):

E' = 0.6 * Eu and re-arranging,

$E_u = E' / 0.6$ where E_u is undrained stiffness and E' is drained stiffness.

4.2.32 For coarser soils, oedometer tests are not suitable and more reliance is placed on in situ testing. In the 2021 GI, both SPT and plate loading tests were undertaken, providing a basis

of evaluation of ground stiffness (drained elastic modulus by definition in coarse, free-draining soils).

4.2.33 Drained elastic modulus is typically related to SPT-N value using the following expression (25) :

$$E' = 1 * N$$

4.2.34 Road pavement stiffness is a function of the placed road pavement layers (capping, sub-base and bituminous) and the underlying foundation soil, where all components deform and respond to traffic stresses from wheel loads. Assessment of the surface stiffness modulus of these layers can be determined directly using in situ tests (plate loading, light weight deflectometer and full size deflectometer) and in the laboratory. The latter determines the California Bearing Ratio (CBR) as described in section 3.8.2 earlier. The CBR does not provide a direct determination of stiffness but provides a basis for calculation of corresponding surface stiffness modulus for road pavement design.

Ground Aggressivity

4.2.35 In the 2021 GI, ground chemistry was assessed from the perspective of geotechnical and structural design and in order to evaluate geo-environmental impact. The latter is described in detail in the geo-environmental model section for each scheme later in this report.

4.2.36 For geotechnical and structural considerations, the main objective at the preliminary stage of design is evaluation of the presence of sulfate bearing soils. These have the potential to allow soluble sulfate compounds to come into contact with buried structural materials and are known to create severe problems with buried concrete and steel. BRE Special Digest 1 (SD1): Concrete in Aggressive Ground (26) provides a basis for assessment of the risks to buried concrete in particular, using a suite of tests for water soluble sulfate that can leach from the soil, whether immediately available or present in other sulfur compounds. The SD1 approach allows determination of the Design Sulfate (DS) class and Aggressive Chemical Environment for Concrete (ACEC) classification. These criteria are considered in the scheme ground summary which follows.

4.2.37 In addition to risks to buried concrete and steel, sulfate bearing soils will constrain soil improvement methods if they are required by later design. These methods, such as lime and/or cement improvement and stabilisation are adversely affected by the presence of soluble sulfate. Excessive consumption of lime and soil swelling are issues that can arise and these are considered where relevant later in this report

4.3 Geology

4.3.1 This section presents the overall assessment of the materials which are present, underlying the scheme route. Based on the 2021 GI, this will provide details of the extents of the various

materials affecting the route corridor. This will be done by presentation of a geological longitudinal section ('long section'), showing the variation in existing ground level and the finished levels of the new scheme. The individual exploratory hole logs are also presented on the long section, along with groundwater strikes which were encountered during drilling or excavation.

4.3.2 For each exploratory hole log, the soil descriptions, in situ tests and laboratory tests have been considered together with the anticipated geology. This has enabled definition of a number of geological units which are subsequently used to delineate the materials within the overall ground model. In order to define these units, the geological setting must be known and is described briefly below.

Geological Setting

4.3.3 Very broadly the regional geology consists of Tertiary sandstones (Penrith and St Bees Sandstones) overlying Lower Carboniferous strata of the Yoredale series. The Carboniferous strata form the higher ground of the Pennines uplifted at the Pennine Fault which trends broadly north west - south east from Melmerby to Brough where it intersects the Dent Fault line. Downthrow is to the west.

4.3.4 From Penrith to Brough the solid geology is predominantly the Penrith Sandstone, well cemented in the west, but becoming less coherent to the east of Appleby where it is more of a sand, particularly at shallow depths. The member is a deposit of aeolian origin. Immediately above the Penrith Sandstone are the Eden Shales containing significant Anhydrite Deposits. These have been mined extensively for Gypsum at Kirby Thore.

4.3.5 The superficial deposits (soils) in this section are predominantly of glacial origin, formed by the action of the ice sheets during the Ice Ages of the Pleistocene and Devensian periods in history. These soils were formed at the base of the ice sheet (lodgement till) or in meltwaters from the ice sheet boundaries (fluvio-glacial till). These soils generally lie beneath a thickness of topsoil.

4.3.6 The glaciation and deposits associated with it control the topography of the area where drumlins have been formed notably between Kirkby Thore and Brough. The principal axes trend roughly north west to south east and the hills so formed can be up to 30m to 40m in height and long axes commonly 600m to 700m. Occasional meltwater channels have been identified.

4.3.7 The lodgement tills are generally composed of particle sizes ranging from cobbles and boulders at the coarse end to silts and clays at the fine end of the mixture. These materials are often referred to as 'boulder clay' and are generally over-consolidated (OC), meaning that the earlier overburden pressure of the ice sheet has now been removed. OC tills therefore can tolerate stresses up to their maximum past overburden pressure with limited compression

and settlement, when compared with soils that are normally-consolidated (NC). NC soils by definition have internal soil pressures directly related to the current soil overburden at any particular depth.

4.3.8 The fines (silt and clay) element of the soil generally dictates the overall behaviour of the lodgement tills and typically fines content in excess of 10% to 15% leads to classification of the primary soil in the mixture as 'fine soil' of SILT or CLAY according to BS5930 (9). Traditionally, these fine soils were described as 'cohesive', to indicate their tendency to stick together and retain shape on re-moulding. Further tests are described later, which determine whether the fine soil is classified as SILT or CLAY.

4.3.9 The fluvio-glacial tills (FG) by comparison tend to be mainly granular materials, comprising sands, gravels, cobbles and boulders. The fine material tends to have been washed out in the meltwater, although up to 10% fine material may still be present. However, this proportion of fines does not dominate the matrix behaviour of the material, so the FG materials are 'coarse soil' according to BS5930.

4.3.10 In addition to the natural superficial soil deposits, materials from anthropogenic origin (man-made) are present. These are described as 'Made Ground' and are generally re-worked local tills or, where forming part of a road, track or footpath, these are often sourced from quarried hard rock. These materials are generally found between ground level and a few metres depth. Where used as fills for construction of road embankments in the past, the Made Ground can be many metres in thickness.

4.3.11 Below the superficial deposits, bedrock is present and extensive in depth. The main rock formations in this scheme are sedimentary rocks. These are sandstone (Penrith Sandstone Formation) and mudstone (Eden Shales Formation). The latter are found mainly at the extreme northern limit of the DCO boundary of this scheme.

4.3.12 Within the Eden Shales Formation, there are thin bands of evaporite rocks, mainly Gypsum. There are two named deposits, being the 'A-Bed' (the lowest, thickest seam) and the 'B-Bed' of lesser thickness at shallower depth. The gypsum has been extracted by deep mining methods and the impact of these historical works is considered in relation to the scheme in this report.

Scheme Elements

4.3.13 The plan and long sections for the Temple Sowerby to Brough schemes are shown in the drawings listed in Table 1-1 and these are provided in Appendix 10A. These show the locations of the various elements (embankments, cuttings and structures) comprising the proposed schemes.

4.3.14 At this stage, the focus of the ground summary is on the route centre line, to determine the stratigraphy and to assign appropriate geological units. This will identify the materials present

beneath the scheme extents, their expected thicknesses and the properties associated with them. The derivation of these geological units is given below.

4.3.15 The Engineering Assessment chapter in this report then discusses the geological units underlying mainline earthworks embankments and cuttings for each of the individual schemes. The assessment considers the suitability of the existing ground in terms of material classification and re-use. In particular, where excavated materials are deemed unsuitable in their 'as-dug' state, potential treatments to render them suitable will be suggested. Earthworks for side roads and new junctions are also reviewed as necessary, given these may be some distance from the centreline and local variations in ground will need to be considered.

4.3.16 The Engineering Assessment chapter also considers the suitability of the ground at the proposed locations of structures, in terms of foundation types. Ground improvement methods to accommodate shallow foundations will be considered where appropriate, and deep (piled) foundations will be suggested where poor ground is likely to make such treatments uneconomical.

Geological Units

4.3.17 The 2021 GI has been used as the basis of the ground model. Exploratory hole logs have been reviewed in conjunction with site observations, in situ test results and laboratory testing to determine a set of geological units.

4.3.18 During site operations, materials were identified in exploratory holes by visual examination and tactile field assessments. These revealed expected soils of glacial origin, some clearly granular in nature and some evidently fine soils, using field tests in accordance with BS5930 (9). The granular deposits were predominantly coarser sands and gravels, consistent with fluvio-glacial deposition. The fine soils had their origin in the lodgement tills and therefore comprised sand, gravel, cobble and boulder mixtures with a significant proportion in the fine fractions (silt and clay). These fine soils exhibited characteristic re-moulding capability, but in some cases were also evidently very sandy.

4.3.19 In the laboratory, PSD and Atterberg Limits were undertaken as described in 4.2 above.

4.3.20 The envelope of all available PSDs for all exploratory holes is given below.

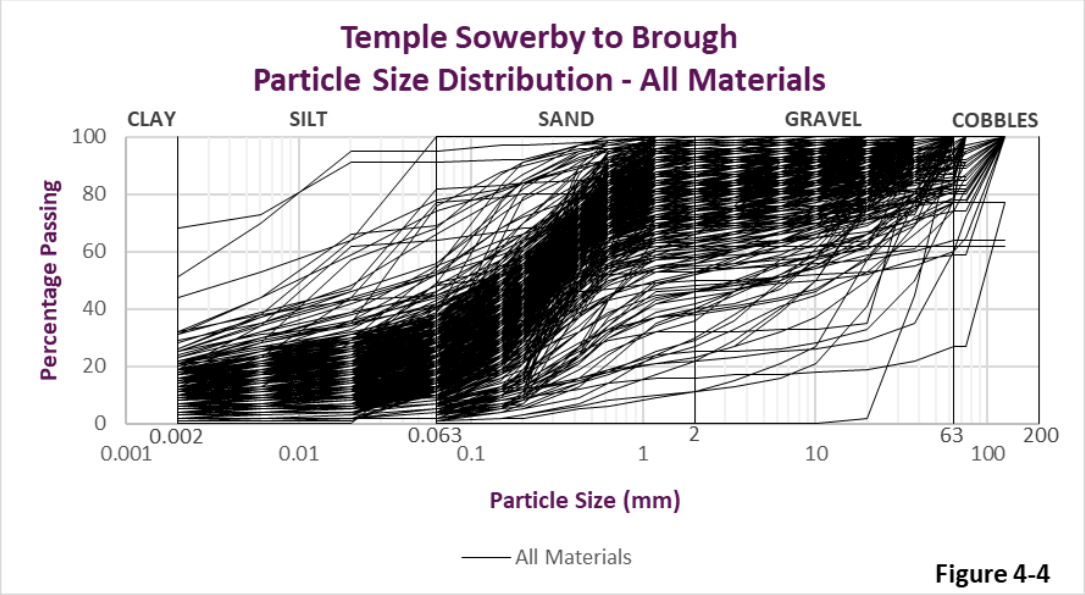

Figure 4-4 Particle Size Distribution Envelope – Temple Sowerby to Brough

4.3.21 In Figure 4-4, the overall envelope of PSDs shows a range of materials as expected. In order to differentiate between the geological units, criteria around grading limits were defined. These limits were determined by analysis and review of both the geological setting and the physical characteristics of the material particles. With this in mind, glacial deposits were anticipated, both lodgement tills deposited at the base of the ice sheets and fluvio-glacial tills deposited from glacial meltwaters. The former were expected to have significant proportions of fine grained soils (silts and clays) and the latter more granular soils (sands, gravels and cobbles). Grading limits were then developed based on these broad classifications. Table 4-1 shows the main geological units and the grading limits adopted. It became evident that the fine soils that were observed as 'sandy' during fieldwork did indeed contain significant fractions of sand and fines and the geological unit GT_V was defined for materials with this composition.

Table 4-1 : Geological Units - Definition and Grading Limits

Geological Unit	Generic Description	Detailed Grading Limits
SAND	Virtually pure sand with small amounts of gravel and silts. May represent both some fluvial deposition in lenses OR primary weathering of Penrith Sandstone (PS).	Greater than 85% sand fraction and less than 15% fines.
GT_S	Granular Glacial Till with varying range of particle sizes but principally coarse. Includes sands and gravels.	SAND less than 85%, FINES less than or equal to 15%, GRAVEL less than 50%
FL_GT	Fluvio Glacial similar to GT_S but generally coarser with more gravel.	SAND less than 85%, FINES less than or equal to 15%, GRAVEL greater than or equal to 50%
GT_V	Cohesive Glacial Till, but with strong SAND component appearing as clayey SAND or sandy CLAY.	SAND less than 85%, but FINES between 15% and 22%
GT_CO	Cohesive Glacial Till with large range of particle sizes.	SAND less than 85%, but FINES greater than 22%

Geological Unit	Generic Description	Detailed Grading Limits
Notes:		
1	SAND, GRAVEL and FINES relate to standard sieve sizes in BSEN ISO17892-4:2016 (27). SILT sizes are from 0.063mm down to 0.002mm diameter. FINES refers to all particle sizes from 0.063mm diameter down, SAND refers to particles between 0.063mm diameter and 2mm diameter, GRAVEL refers to particle sizes from 2mm diameter to 63mm diameter. For completeness, the standard defines COBBLE sizes from 63mm to 200mm and BOULDERS when coarser than 200mm diameter.	

4.3.22 In addition to the geological units in Table 4-1 for the superficial deposits, the bedrock geology presents predominantly sandstone of the Penrith Sandstone formation (PS) and Conglomerate of the Brockram sequence of the Penrith Sandstone Formation (BRCK). In the Kirkby Thore area, mudstone of the Eden Shales formation is present, including thin bands of gypsum.

4.3.23 Where man-made features are present, these tend to be earthworks associated with road construction or agriculture. The materials used in most cases are locally sourced, comprising re-worked tills. Where road pavement layers were present, the underlying granular sub-base and capping materials had generally been sourced from locally quarried rocks. These various materials are generically referred to as MADE GROUND in exploratory hole logs, either GRANULAR or COHESIVE. In this scheme, the made ground is predominantly fine (cohesive) soil of re-worked glacial till.

4.3.24 Typically, where exploratory holes were formed in agricultural land, grass and topsoil were present in the upper 200mm to 300mm of the soil. This unit is described as TOPSOIL in the exploratory hole logs.

4.3.25 In general, the sequence of materials from ground level commences with topsoil and ends in the bedrock. Between these horizons, the units identified in Table 4-1 are present. Due to the nature of glacial deposition, some of the units may not be present in a particular area. Furthermore, individual units may be present in multiple layers or lenses in areas, leading to a mixed stratigraphic sequence. However, it is typical to find either fine (cohesive) glacial till (GT_V and GT_CO) or coarser (granular) glacial till (GT_S and FL_GT) as the predominant unit in a given area.

4.3.26 The unit identified as SAND can be a fluvio glacial or alluvial deposit, but in general tends to be completely weathered Penrith Sandstone (PS). As such, it tends to be present as a layer lying directly on the remaining non-weathered PS rock mass below.

Geological Sections

4.3.27 Using the geological units identified above, the exploratory hole information for the whole of Temple Sowerby to Brough route has been plotted on a geotechnical longitudinal (“long”) section along the centreline of the proposals. Each long section is shown beneath its accompanying scheme layout plan. The positions of the exploratory holes are presented on the plan.

4.3.28 Given the length of the scheme, a number of drawings are needed to present the complete long section and plans and these were listed in Table 1-1

4.3.29 The long sections show the exploratory holes within a defined perpendicular distance of the centreline. This distance or "buffer" is set to include all exploratory holes within the footprint of the proposed earthworks. Where such projection includes exploratory holes that are very close together, one or more may be omitted or moved slightly for clarity. However, all exploratory holes are considered in assessment of the ground investigation information in following parts of this report.

4.3.30 The drawings listed in Table 1-1 therefore show the exploratory holes and the assessed geological units described earlier.

4.4 Test Results and Derived Parameters

4.4.1 This section of the report summarises the stratigraphy and the geological units that are present between Temple Sowerby and Brough. By examination of the in situ and laboratory test results, the parameters for preliminary design have been determined. This allows a geotechnical assessment and ground model to be developed for the whole Temple Sowerby to Brough area.

4.4.2 The area wide ground model then provides the basis for separate assessment of each of the proposed schemes within its limits:

- Temple Sowerby to Appleby
- Appleby to Brough

4.4.3 Each of these schemes is considered later in the Engineering Assessment section, using the findings of the area wide model. Where local test results are in agreement with the area wide ground model, those derived parameters will be adopted at the scheme level. Where there are significant local variations in test results, derived parameters at the scheme level can be adjusted accordingly.

4.4.4 The rationale for determination of geological units was given earlier and those geological units have been assigned to each stratum in each exploratory hole.

4.4.5 For earthworks cuttings, stability considerations are paramount and assessment of shear strength parameters is required.

4.4.6 For earthworks embankments, in addition to shear strength parameters and compressibility of the embankment material itself, similar properties of the soil below the proposed foundation level must be assessed. Further, the materials used for embankment construction must be workable and compliant with the current Specification for Highway Works.

4.4.7 For structure foundations, the compressibility characteristics and bearing capacity are primary concerns.

4.4.8 In order to derive parameters for future design, Table 4-2 below lists the design scenario (cutting, embankment, structure) and the parameters that need to be derived for each. As described earlier, the in situ test results, laboratory test results and relevant correlations will be considered in deriving these parameters. These derived parameters will also provide a basis for selection of characteristic material parameters at a future date when the detailed design process will be undertaken.

Table 4-2 : Design Scenarios and Material Parameters

Design Scenario	Requirement	Relevant Parameters	
EARTHWORK CUTTING	Classification of excavated materials	a	Particle Size Distribution
		b	Moisture Content
		c	Atterberg Limits – Plasticity Index, Liquid Limit and Plastic Limit Moisture Contents
		d	Chemical Stability – Sulfate and pH
	Subgrade Stiffness Characteristics (including road pavement design)	e	California Bearing Ratio – soil In Situ (foundation sub-grade) Lightweight Deflectometer Results
	Cutting face stability	f	Undrained shear strength
		g	Drained shear strength
	Rock Cutting face stability	h	Unconfined Compressive Strength in conjunction with mapping of rock mass structural geology (fractures, bedding, planes of weakness) to assess rock mass shear strength parameters.
EARTHWORK EMBANKMENT	Placement of fill - compaction characteristics, strength (remoulded) of fill materials, excavated from earthworks cuttings for re-use.	i	Bulk density, bulking factor
		j	Compaction - Dry density relationship with moisture content
		k	Compaction Assessment – Moisture Condition Value (MCV)
		l	Compaction Assessment – MCV/Moisture Content Relationship
		m	Remoulded undrained shear strength of fine material
		n	Remoulded drained shear strength of fine material
		o	Remoulded drained shear strength of coarse material
	Embankment Formation Stiffness Characteristics (including road pavement design)	p	California Bearing Ratio – soil after remoulding (used as fill)
	Embankment Formation Compressibility/Settlement	q	Coefficient of Volume Compressibility, Coefficient of Consolidation, Time for Consolidation
	Earthworks - Classification of fill materials (generally site won from earthworks cuttings)	a, b, c, d.	As a to d above
	Embankment subgrade strength	f	As f above
		g	As g above
STRUCTURE FOUNDATION	Support to spread footing – bearing capacity	f	As f above, for fine foundations soils, immediate strength
		g	As g above for fine and coarse foundation soils, long term strength.
		h	As h above. Unconfined Compressive Strength for spread footings on rock.
	Settlement of spread footing under working loads	q	As q above.
	Support to piled foundations – shaft and base resistance	f	As f above, for fine foundations soils, immediate strength.

Design Scenario	Requirement	Relevant Parameters	
		g	As g above for fine and coarse foundation soils, long term strength.
	Settlement of piled foundations under working loads	r	Mass deformation modulus (stiffness), fine and coarse soil or rock at pile toe. (Used with pile stiffness modulus, although this is not in scope of this report).

4.4.9 In order to derive the material parameters listed in Table 4-2, various laboratory and in situ test results need to be considered. The following approach has been adopted to evaluate the test results:

- List the test types undertaken – in situ and laboratory.
- For each of the geological units described earlier, determine the range of results for each test and identify minimum, maximum and mean values.
- For each of the geological units, derive relevant parameters from the results, considering the range of values and the statistical validity of the number of tests. Given the nature of preliminary design, significant variation in material characteristics is likely, but this report will consider relevant literature to discard outliers to enable suitable conservative parameter values to be determined.

4.4.10 This process will allow derivation of the material parameters for the overall area between Temple Sowerby and Brough. From this set of material parameters, subsets can be identified for the individual schemes, depending on the design scenarios envisaged. Given this report is based on the initial 2021 GI, there may be significant physical distances between exploratory holes and particular earthworks features, particularly on side roads. Where this is the case, relevant parameters will still be derived and reported, with the understanding that they will be best estimates until more specific targeted exploratory holes are undertaken in future. At time of writing, a Phase 2 Ground Investigation is planned, using a gap analysis to identify locations where more specific information is required.

4.4.11 Table 4-3 provides the list of laboratory and in situ test types undertaken. Tests were carried out in accordance with relevant standards as reported in the 2021 GI. For each geological unit, the results of each test type will be reviewed and the range of values and probable mean values determined. From these, the set of derived material parameters will then be determined and summarised.

Table 4-3 : In Situ and Laboratory Test Types

Test Type	Test	Unit	Comments
Laboratory	Water Content (WC)	%	General soil property and determinant of behaviour, particularly fine soils. Ratio of water mass to dry soil mass in a given soil sample.
	Atterberg Limits (AL)	%	For fine soils, water content (see above) range where the material behaviour is plastic. Lower bound water content is referred to as the plastic limit, upper bound as the liquid limit. Used to determine soil class for Specification for Highway Works (SHW).
	Particle Size Distribution (PSD)	%	Mass of soil particles in different size ranges or fractions in a soil sample. Expressed as percentage of total mass of soil passing each fraction using standard test sieves. Used to determine soil class for SHW.
	Particle Density (PD)	Mg/m^3	Result for use in a number of laboratory tests and reports. Value generally assumed as 2.65 in absence of site-specific determination.
	Dry Density / Moisture Content Relationship (DD/OMC), Standard and modified Proctor	Mg/m3 vs. %	Compaction assessment. Determines dry density for a range of water contents to determine the maximum dry density and corresponding water content. Referred to as Optimum Moisture Content (OMC).
	Moisture Condition Value (MCV and MCV Cal)	-	Measurement of effort to achieve maximum compaction and used as a field quality control method. A suitable range of water contents is tested to determine a calibration range. Used with undrained shear strength for compliance control of earthworks materials during construction.
	California Bearing Ratio (CBR)	%	Surface stiffness modulus measurement - related to a reference value of displacement/stress and expressed as a percentage. For road pavement design.
	One Dimensional Consolidation by Oedometer	m^2/MN $m^2/year$	Coefficient of Volume Compressibility (m_v) and Coefficient of Consolidation (C_v). Respectively determine magnitude and rate of compression under working loads.
	Triaxial Compression	kPa and/or degrees	Immediate shear strength of fine soils, undrained. Effective (long term) shear strength of fine soils, drained.
	Shearbox	kPa and/or degrees	Effective (long term) shear strength of coarse soils, drained.
	Uniaxial Compressive Strength	MPa	Compressive strength of rock. (UCS)
	Point Load Index	MPa	Compressive strength of rock, used in correlation to determine UCS.
In Situ	Standard Penetration Test (SPT)	N60	Blow count over standard test drive, corrected to 60% energy ratio for standard hammer. In granular soils, provides a measure of relative density and used to assess internal angle of friction. In fine soils, value is used in standard correlations to derive undrained strength.
	Hand Shear Vane (HSV)	kPa	Undertaken in fine soil samples from trial pits. Provides a measure of peak and residual undrained shear strength.
	Plate Load Test	kPa/m	Provides a Modulus of Subgrade Reaction (displacement under given stress). Also used in correlation to derive California Bearing Ratio.
	Light Weight Deflectometer	MPa	Determines a subgrade surface stiffness modulus Emod which provides the basis for pavement foundation design.
	Soakaway (Infiltration) Testing	m/s	Determines the infiltration rate into the existing ground. Used in design of soakaway and detention ponds in drainage scheme design.
	Photo-Ionisation Detector (PID) measurement of volatile hydrocarbons	ppm	Determination of presence and concentration of volatile organic compounds in soils. This property is related to ground chemistry and is discussed in the geo-environmental model section of the report.
	Groundwater Level	mAOD	The ground water level, as measured in standpipes and piezometers installed in exploratory holes. Measured on separate occasions to consider seasonal trends.

4.4.12 In each of the following sections, the test results are evaluated under the headings of the geological units. For each unit, the section describes the tests and reports and summarises results in tabular and graphical formats as appropriate. In Appendix 10C Geotechnical Charts, selected charts are provided at larger scale.

4.4.13 For the MDD/OMC relationships, the majority were carried out using Standard Proctor (2.5kg hammer). Approximately 10% of the tests were carried out using the modified Proctor (4.5kg hammer) to assess effects and benefits of heavier compaction on drier soils (generally less than 13% natural moisture content. The cohesive materials generally were seen to exhibit an expected improvement in dry density with corresponding lower optimum moisture content, however insufficient modified Proctor tests were carried out to fully determine a statistical validation. Further explanation of testing is given in subsequent sections.

Test Results – MG_CO (Made Ground Cohesive)

4.4.14 “Made ground” is the description given to a soil which has been excavated from a local source and then used in farming, industrial or transportation infrastructure. The “made ground cohesive” MG_CO unit would typically have its origin in the fine grained glacial tills local to the route corridor. This material has not been encountered in any exploratory holes in the Temple Sowerby to Brough section in the 2020 GI, although its presence should not be discounted until the results of later planned investigation are known.

Test Results – MG_GR (Made Ground Granular)

4.4.15 The “made ground granular” MG_GR unit is expected to have its origin in the coarse grained glacial tills local to the route corridor, or is derived from a quarry source. In other cases, granular made ground has a more obvious origin in man-made materials, such as concrete or brick, often demolition rubble used as fill. These materials may also indicate in situ remnants of historical foundations.

4.4.16 This MG_GR material has only been encountered in a single exploratory hole in the Temple Sowerby to Brough section and this is listed in the table below. In general, the MG_GR unit is present from ground surface, given its primary purpose of forming fill areas for the infrastructure purposes noted above.

Table 4-4 : Exploratory Holes - Granular Made Ground (MG_GR)

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Grass overlying dark grey locally mottled brown very gravelly silty fine to coarse SAND with low cobble content. Gravel is very angular to subrounded fine to coarse of brick, sandstone, concrete, ash and mudstone. Cobbles are very angular of sandstone.
BH AB030	0.00 – 0.40	
Trial Pits		
None	-	
Notes: 1. mbegl – metres below existing ground level		

4.4.17 The description for granular made ground in Table 4-4 is a typical description, associated with obvious man-made materials. Whether from this source or from a more natural source in the coarse tills, the coarse fractions of the soil (sands, gravels) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics of the whole soil matrix. This is discussed later in the 'Derived Parameters' section for the MG_GR unit.

4.4.18 In situ and laboratory test results for the MG_GR unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.19 As the MG_GR unit is generally found at shallow depth, it was not possible to undertake Standard Penetration Tests in boreholes for this unit. There are currently no results in the table below. However, the table will be left for inclusion of results following planned future investigation.

Table 4-5 : MG_GR - Standard Penetration Test Results

Exploratory Hole	Test Depth (mbegl) Note 1	Standard Penetration Test Result N_{60}
None	-	-
Notes: 1. mbegl – metres below existing ground level		

4.4.20 There were no further in situ or laboratory tests on the MG_GR material.

Test Results - GT_S (Granular Glacial Till)

4.4.21 The GT_S unit is a granular material with its origin in the lodgement tills. Further glacial actions have generally resulted in wash-out of a portion of the finer fractions, leaving predominantly silty clayey sands and gravels. The table below lists the exploratory holes where the GT_S unit was found.

Table 4-6 : Exploratory Holes - Granular Glacial Till (GT_S)

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Very dense reddish brown clayey fine to coarse SAND with high cobble content. Sand is fine to coarse. Cobbles are subangular to subrounded of mixed lithologies including sandstone. Medium dense reddish brown gravelly clayey fine to coarse SAND with horizons of soft to firm reddish brown slightly gravelly sandy clay, and a low cobble content. Brown very gravelly clayey fine to coarse SAND with medium cobble content. Gravel is subangular to subrounded fine to coarse of mixed lithologies. Cobbles are subrounded of mixed lithologies.
BH KTB001, BH KTB004, BH KTB006, BH KTB008, BH KTB011, BH KTB024, BH KTB025, BH KTB028	0.25 – 8.00	
BH KTA007, BH KTA013, BH KTA014	0.30 – 6.64	
BH AB001, BH AB002, BH AB003, BH AB005, BH AB006A, BH AB008, BH AB009, BH AB010, BH AB011, BH AB012, BH AB012A, BH AB014, BH AB018, BH AB020, BH AB021, BH AB022, BH AB024, BH AB025, BH AB027, BH AB028, BH AB031, BH AB032, BH AB033, BH AB034, BH AB035, BH AB036, BH AB037, BH AB038, BH AB040, BH AB041, BH AB042, BH AB048	0.15 – 13.10	
Trial Pits		

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
TP KTB003, TP KTB004, TP KTB005, TP KTB006, TP KTB007, TP KTB018	0.30 – 3.50	Medium dense brownish red gravelly clayey fine to coarse SAND of quartz. Very dense reddish brown very gravelly clayey fine to coarse SAND. Loose orangish brown very gravelly clayey fine to coarse SAND. Orangish brown very gravelly clayey fine to coarse SAND with low cobble content. Dark brown sandy clayey fine to coarse GRAVEL with high cobble content (<80mm). Orangish brown clayey sandy GRAVEL with low cobble content. Yellowish white gravelly clayey fine to coarse SAND with occasional gravel sized clay pockets. Reddish brown with localised yellowish mottling very gravelly clayey fine to coarse SAND.
TP KTA006	0.40 – 0.90	
TP AB.borrowpit02, TP AB.borrowpit03, TP AB.borrowpit04	0.30 – 3.50	
TP AB001, TP AB002, TP AB003, TP AB004, TP AB005A, TP AB007, TP AB011, TP AB012, TP AB013, TP AB014, TP AB015, TP AB016, TP AB017, TP AB018, TP AB019, TP AB020, TP AB022, TP AB024, TP AB026, TP AB027, TP AB029, TP AB030, TP AB031, TP AB032, TP AB033, TP AB034, TP AB036, TP AB037, TP AB038, TP AB039, TP AB041, TP AB042, TP AB044, TP AB047, TP AB048, TP AB049, TP AB050, TP AB051, TP AB052, TP AB053, TP AB055	0.00 – 3.50	
Notes: 1. mbegl – metres below existing ground level		

4.4.22 The descriptions for granular glacial till in Table 4-6 are typical. Generally described as clayey gravelly SAND and less often as clayey sandy GRAVEL, the coarse fractions of these soils (sands, gravels) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics of the whole soil matrix. This is discussed later in the 'Derived Parameters' section for the GT_S unit.

4.4.23 In situ and laboratory test results for the GT_S unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.24 Standard Penetration Tests were undertaken in boreholes for this unit. The raw test values were standardised to a hammer energy of 60% (N60) and the range of values is presented in the table below.

Table 4-7 : GT_S - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
All boreholes	1.20 - 12.90	4 - 50
BH KTB series	1.20 - 7.00	10 - 46
BH KTA series	3.00 - 6.50	6 - 50
BH AB series	1.20 - 12.90	4 - 44
Notes: 1. mbegl – metres below existing ground level		

4.4.25 The SPT N60 values are shown in relation to test depth in Figure 4-5.

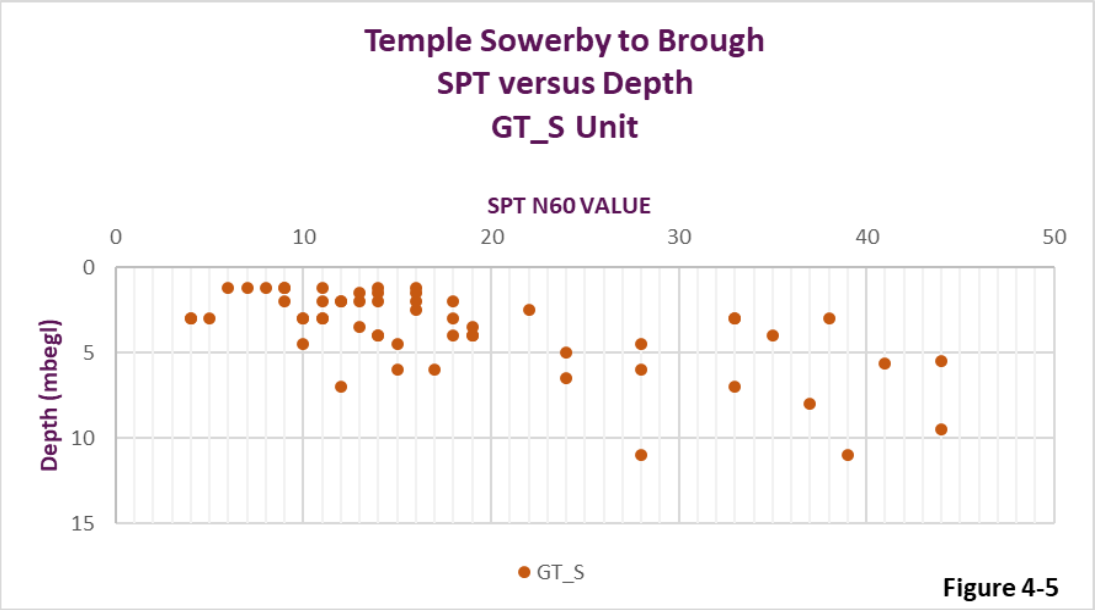

Figure 4-5 GT_S - SPT N60 versus Depth

4.4.26 Plate load tests were undertaken in this unit to determine subgrade surface modulus directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Tests were undertaken in trial pits in several locations, at depths between 0.3m and 0.5m below existing ground level. For the GT_S unit, these test results are given in the table below.

Table 4-8 : GT_S - Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Subgrade Surface Modulus, Es (MPa/m)	Equivalent CBR (%)
TP KTB007	0.50	81.5	20%
TP KTB006	0.50	71.4	16%
TP AB053	0.50	53.8	10%
TP AB050	0.50	68.9	15%
TP AB047	0.50	88	23%
TP AB044	0.50	63.4	13%
TP AB042	0.50	43.8	7%
TP AB041	0.50	68.4	15%
TP AB039	0.50	66.9	14%
TP AB037	0.50	84.5	21%
TP AB032	0.45	90	24%
TP AB031	0.50	55.8	10%
TP AB029	0.45	158.5	63%
TP AB018	0.45	105.1	31%
TP AB017	0.50	42.8	7%
TP AB014	0.50	90.5	24%
TP AB003	0.50	67.9	14%
RANGE	**0.45 – 0.50**	**42.8 – 158.5**	**7% - 63%**

Notes:
1. mbegl – metres below existing ground level

4.4.27 In addition to the plate bearing tests reported above, subgrade surface stiffness modulus was determined using lightweight deflectometer (section 3.4). Results are presented in the following table.

Table 4-9 : GT_S - Lightweight Deflectometer Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Subgrade Surface Stiffness Modulus Emin / Emax/Eaverage (MPa) Note 2
TP AB014	0.50	22/40/27
TP AB029	0.45	100/109/105
TP AB031	0.50	29/32/30
TP AB032	0.45	32/38/35
TP AB037	0.50	36/41/39
TP AB039	0.50	42/48/45
RANGE	**0.45 - 0.50**	**22 - 109**

Notes:
1. mbegl – metres below existing ground level
2. Emin and Emax and Eaverage determined from between 6 and 10 individual readings per test.

4.4.28 Soakaway tests described in section 3.4 were undertaken in a number of trial pits. In general, these did not reveal measurable infiltration rates, due to the very low permeability of the materials present. Only one test in the GT_S unit produced an infiltration rate as shown in the table below.

Table 4-10 : GT_S - Soakaway Test Results

Exploratory Holes	Test Pit Depth (mbegl) Note 1	Infiltration Rate (m/s)
TP AB029	2.0	Not determined
TP AB038	2.0	Not determined
TP AB039	2.0	3.45×10^{-6}

Notes:
1. mbegl – metres below existing ground level

4.4.29 In addition to the in situ tests described above, laboratory tests were undertaken for materials in the GT_S unit. These are reported in the following sections.

4.4.30 Particle size distributions (PSDs) in the GT_S unit were undertaken throughout the Temple Sowerby to Brough scheme area. As noted earlier, this material was encountered at depths from existing ground level up to 13.1mbegl. For the GT_S unit, the materials have their origin in Granular Glacial Till with a varying range of particle sizes, but principally coarse material of sands and gravels. The PSDs for the GT_S unit are shown in the figure below.

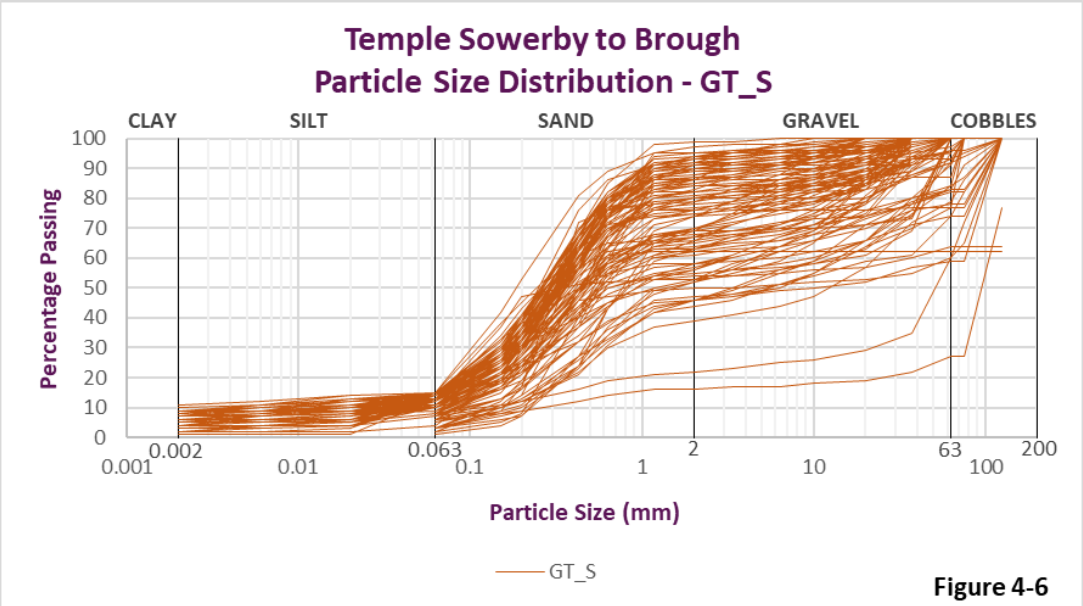

Figure 4-6 GT_S - Particle Size Distribution

4.4.31 Atterberg Limits are used to determine the plasticity index for silt and clay sized fractions. For the granular tills, the clay and silt fraction do not dominate the overall soil matrix behaviour and are not discussed here. On occasion, where Atterberg Limits were determined for the GT_S unit, plasticity index may have been determined, but this is not of relevance and is not reported here.

4.4.32 Strength of granular materials has been directly determined by shearbox testing. These tests determine the peak and residual internal angle of friction (phi) and any associated apparent cohesion (c). By definition, shearbox testing assumes full drainage (dissipation of pore pressures) during shearing and consequently, effective strength parameters are determined (phi' and c'). For the GT_S unit, the following table shows the testing undertaken and the strength parameters determined in each test.

Table 4-11 : GT_S - Laboratory Shearbox Testing Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Shear Strength Parameters (c' kPa / phi' degrees)
BH AB001	1.20	13/35
BH AB002	3.00	11/38
BH AB005	6.00	4/36.5
BH AB009	2.00	14/31.5
BH AB009	9.50	7/31.5
BH AB011	2.00	4/34
BH AB012A	1.00	10/35
BH AB014	1.20	1/36
BH AB028	3.00	2/38
BH AB033	0.30	11/37
BH AB034	0.50	17/29

Exploratory Holes	Sample Depth (mbegl) Note 1	Shear Strength Parameters (c' kPa / phi' degrees)
BH AB035	2.00	4/33
BH AB041	1.20	5/41.5
BH AB042	11.00	1/38
BH AB048	0.20	4/33
BH KTB011	3.00	11/37
BH KTB025	0.30	3/37
TP AB003	0.90	8/40
TP AB011	1.10	3/37.5
TP AB012	1.90	11/33.5
TP AB015	1.10	8/31
TP AB017	1.10	0/40.5
TP AB018	0.50	8/33
TP AB019	0.90	5/37
TP AB020	0.90	10/31
TP AB022	1.00	0/33
TP AB029	0.50	8/31.5
TP AB030	0.80	1/40
TP AB038	1.00	7/32
TP AB044	0.50	0/33.5
TP AB047	2.10	16/32.5
TP AB.borrowpit03	0.35	8/30.5
TP KTB004	1.60	0/33
TP KTB007	0.50	4/32
WS AB007	3.00	6/37.5
RANGE	**0.20 – 11.00**	**29 to 41.5 Note 2**

Notes:
1. mbegl – metres below existing ground level
2. c' and phi' are complementary elements of the shear strength. However, c' can be an artefact of testing and is often ignored, so that the shear strength range is for the angle of shearing resistance phi' only. This range is reported here.

4.4.33 For the GT_S unit, the variation of effective angle of internal friction with depth is shown in the figure below. With regard to the apparent effective cohesion, this can often be associated with testing limitations and is generally ignored. However, on some occasions it is feasible that the material in situ is very dense and cemented, possessing a built in shear resistance or apparent cohesion, but this is unlikely in a re-moulded specimen. Consequently, the c' values in the above table cannot be relied upon and are discounted.

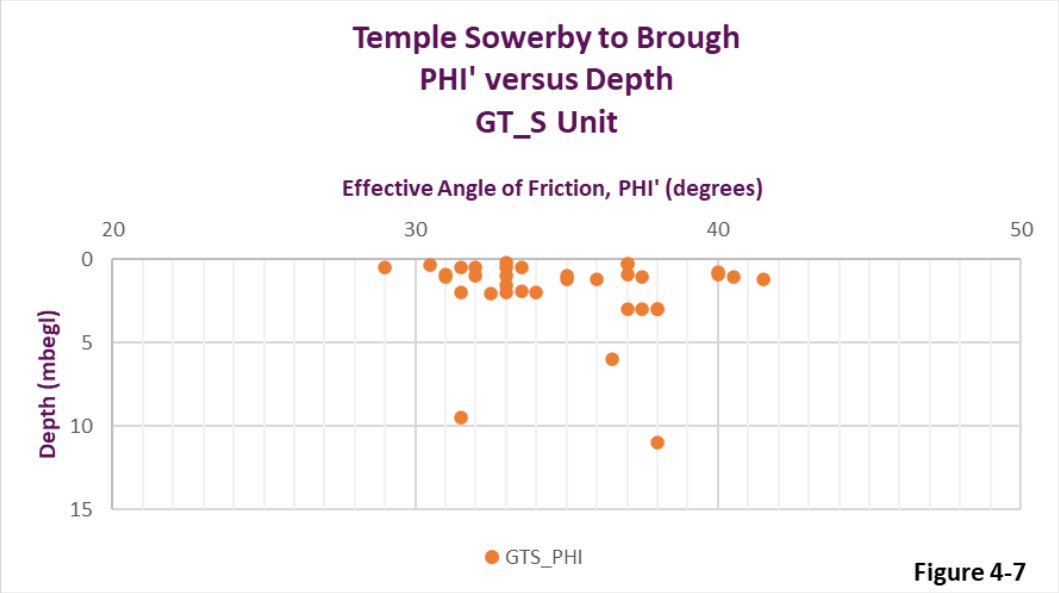

Figure 4-7 GT_S - Variation of angle of internal friction with depth

4.4.34 There are standard correlations using SPT N value to determine internal angle of friction in granular materials. These are considered in the later 'Derived Parameters' section for the GT_S unit.

4.4.35 The GT_S material is a likely candidate for future re-use in earthworks, being free-draining and readily compacted. 37no compaction tests were undertaken on samples of the material and a relationship between dry density and moisture content was determined for each sample. Of the total omc tests four were compacted to modified Proctor (4.5kg). The results do not clearly establish an increase in dry density with heavier compactive effort. Attention is drawn to one result at MDD of 2.87Mg/m3 which is considered erroneous. The relationships for individual tests can be found in the 2021 GI Factual Report. The table below provides the maximum dry-density achieved for a given sample and the corresponding water content.

Table 4-12 : GT_S - Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Moisture Content At Maximum Dry Density (%)
BH AB002	4.0	2.15	7.9
BH AB003	0.3	1.87	12.0
BH AB003	7.0	1.97	14.0
BH AB005	2.0	2.07	9.4
BH AB005	5.0	1.86	15.0
BH AB005	8.0	2.00	10.0
BH AB011	0.3	1.97	11.0
BH AB011	1.2	2.06	8.3
BH AB011	4.0	2.09	8.9
BH AB033	3.0	2.03	9.6
BH AB033	5.0	2.14	8.8

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m³)	Moisture Content At Maximum Dry Density (%)
BH AB034	0.5	2.87 Note 2	6.0
BH AB034	1.2	2.10	8.0
BH KTB024	7.0	1.83	14.0
TP AB.borrowpit02	0.4	2.00	10.0
TP AB.borrowpit02	2.0	1.95	11.0
TP AB.borrowpit03	0.4	1.96	11.0
TP AB.borrowpit03	2.4	1.96	10.0
TP AB.borrowpit04	0.4	1.94	11.0
TP AB.borrowpit04	1.6	2.05	9.5
TP AB002	0.3	2.04	11.0
TP AB004	0.2	1.84	15.0
TP AB005A	0.8	1.94	11.0
TP AB015	0.4	1.89	13.0
TP AB020	1.4	1.97	10.0
TP AB024	0.9	1.95	11.0
TP AB026	0.9	2.04	10.0
TP AB029	1.4	1.97	9.0
TP AB032	2.1	2.03	11.0
TP AB038	0.4	1.93	11.0
TP AB038	1.8	1.96	11.0
TP AB039	1.0	1.96	8.9
TP AB039	1.9	2.04	10.0
TP AB041	0.5	1.96	9.6
TP AB049	2.1	2.06	10.0
TP KTB004	0.5	1.90	13.0
WS AB007	2.0	2.06	9.0
BH AB002	4.0	2.15	7.9
BH AB003	0.3	1.87	12.0
BH AB003	7.0	1.97	14.0
RANGE	**0.2 – 8.0**	**1.83 – 2.87**	**6.0 – 15.0**

Notes:
1. mbegl – metres below existing ground level
2. This is considered an unrealistic result

4.4.36 The maximum dry density and corresponding moisture contents in the above table have been plotted in the figure below.

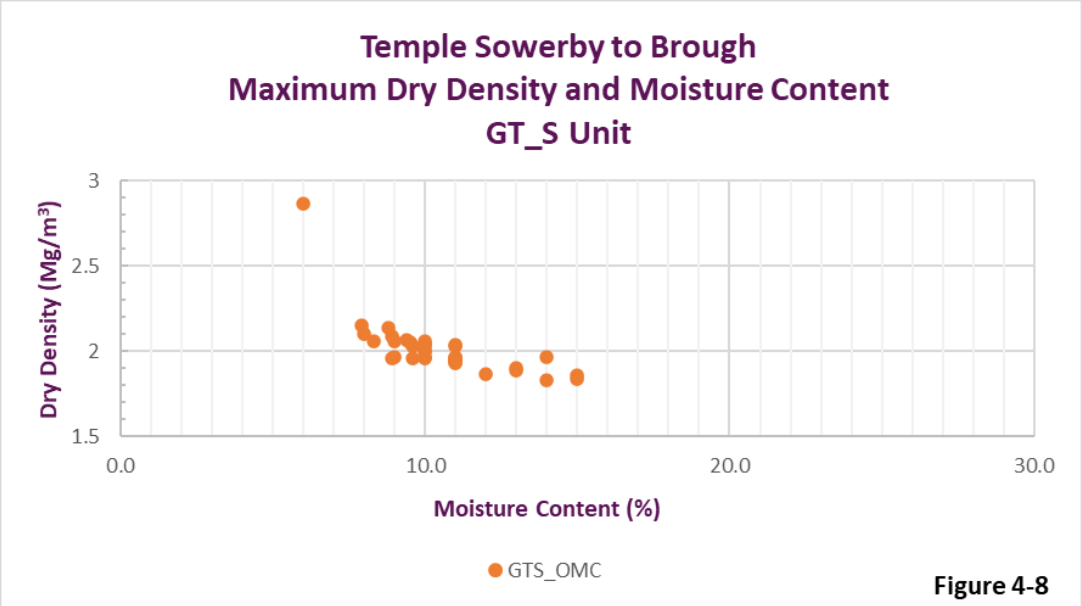

Figure 4-8 GT_S - Maximum Dry Density and Moisture Content Range

4.4.37 In addition to the compaction testing which determined the relationship between dry density and moisture content, corresponding Moisture Condition Value (MCV) testing was undertaken. This test is aligned with compliance and quality control during earthworks filling operations. It provides a rapid means of assessing material suitability for filling without the requirement to measure the material moisture content. Instead, the expected effort to achieve near complete compaction is measured by a blow count in standard test apparatus, where a function of the blow count at near full compaction is referred to as the MCV. MCV is determined at natural moisture content (single point) and is also determined on a range of moisture contents to provide a calibration line. The calibration line can then be used to provide a range of maximum and minimum values of MCV that equate to a satisfactory level of compaction for a given soil. Although a very wide range of soils can be suitable for the MCV test, granular soils with limited fines can prove unsuitable for both single point and calibration determinations. Given the foregoing, for the GT_S unit, the following table lists the MCV tests undertaken.

Table 4-13 : GT_S - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH AB002	4.0	Single	12.0	3.4
BH AB002	5.0	Single	13.0	0.2
BH AB005	2.0	Single	11.0	0.0
BH AB005	3.0	Calibration	12.4	0.0
BH AB005	3.0	Calibration	7.3	8.8
BH AB005	3.0	Calibration	9.5	6.6
BH AB005	3.0	Calibration	5.7	10.1
BH AB005	3.0	Calibration	10.6	4.7

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH AB005	5.0	Single	7.1	2.9
BH AB009	1.2	Calibration	12.0	0.5
BH AB009	1.2	Calibration	7.6	11.1
BH AB009	1.2	Calibration	9.2	8.4
BH AB009	1.2	Calibration	9.9	7.5
BH AB009	1.2	Calibration	10.8	3.2
BH AB010	2.0	Calibration	17.0	0.0
BH AB010	2.0	Calibration	10.7	8.1
BH AB010	2.0	Calibration	12.4	4.0
BH AB010	2.0	Calibration	9.1	9.8
BH AB010	2.0	Calibration	6.4	12.0
BH AB010	3.0	Calibration	13.2	4.6
BH AB010	3.0	Calibration	12.5	4.9
BH AB010	3.0	Calibration	10.8	8.4
BH AB010	3.0	Calibration	9.8	10.8
BH AB011	0.6	Single	14.0	1.0
BH AB011	3.0	Calibration	5.2	5.6
BH AB011	3.0	Calibration	4.4	11.6
BH AB011	3.0	Calibration	3.7	6.9
BH AB011	3.0	Calibration	5.7	3.4
BH AB021	4.5	Single	14.0	1.5
BH AB027	3.0	Single	12.0	0.0
BH AB042	11.0	Single	11.0	3.4
BH KTB025	1.2	Single	13.0	3.4
TP AB007	1.1	Single	8.9	0.2
TP AB011	2.2	Single	13.0	0.0
TP AB014	0.5	Single	9.8	0.0
TP AB019	0.9	Calibration	11.7	8.8
TP AB019	0.9	Calibration	9.5	6.6
TP AB019	0.9	Calibration	9.0	10.1
TP AB019	0.9	Calibration	7.8	4.7
TP AB019	0.9	Calibration	6.6	2.9
TP AB020	0.5	Calibration	14.9	0.5
TP AB020	0.5	Calibration	13.3	11.1
TP AB020	0.5	Calibration	11.7	8.4
TP AB020	0.5	Calibration	12.4	7.5
TP AB020	0.5	Calibration	10.7	3.2
TP AB020	0.9	Single	14.0	0.0
TP AB020	1.9	Single	12.0	8.1
TP AB024	0.9	Single	17.0	4.0
TP AB029	1.8	Single	12.0	9.8
TP AB038	1.4	Calibration	11.7	12.0
TP AB038	1.4	Calibration	7.0	4.6
TP AB038	1.4	Calibration	8.5	4.9
TP AB038	1.4	Calibration	12.9	8.4
TP AB039	0.5	Single	9.6	10.8
TP AB039	2.3	Calibration	10.0	1.0
TP AB039	2.3	Calibration	9.3	5.6
TP AB039	2.3	Calibration	8.9	11.6
TP AB039	2.3	Calibration	7.9	6.9
TP AB041	2.9	Single	13.0	3.4
TP AB.borrowpit04	1.6	Calibration	9.0	1.5
TP AB.borrowpit04	1.6	Calibration	10.4	0.0
TP AB.borrowpit04	1.6	Calibration	9.8	3.4
TP AB.borrowpit04	1.6	Calibration	11.0	3.4
TP KTB004	1.0	Calibration	10.6	0.2
TP KTB004	1.0	Calibration	12.3	0.0
TP KTB004	1.0	Calibration	9.8	0.0
TP KTB004	1.0	Calibration	11.0	8.8
TP KTB004	2.2	Single	7.3	6.6
TP KTB006	2.9	Single	9.8	10.1
WS AB007	1.2	Single	13.0	4.7
BH AB002	4.0	Single	12.0	2.9
BH AB002	5.0	Single	13.0	0.5

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH AB005	2.0	Single	11.0	11.1
BH AB005	3.0	Single	12.4	8.4
RANGE			**3.7 – 17.0**	**0.0 – 13.2**

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. Where Test Type is Single, the water content for the test is natural.

4.4.38 The MCV value and moisture content data pairs for all results are given in the figure below, showing the range of potential MCV values and corresponding moisture contents. The individual results from each calibration test are also shown, rather than each calibration line. Individual calibration lines can be viewed in the 2021 GI Factual Report. The calibration test results used a range of five moisture contents where possible with the natural moisture content covered within the range if possible, but generally the NMC was higher than the workable range and produced a "zero" or very low MCV result with some 16% of the results returning mcv values of less than 1 on a varying range of moisture contents (11% to 17%).

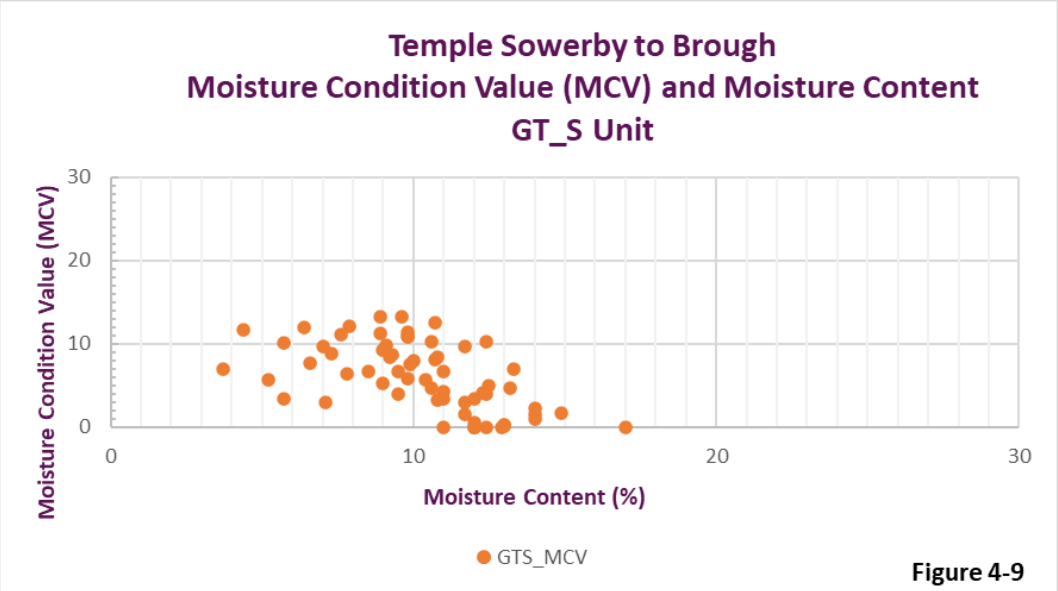

Figure 4-9 GT_S - Moisture Condition Value (MCV) and Moisture Content Relationship

4.4.39 In situ plate bearing tests were described above, where equivalent CBR was determined indirectly by relationship with stiffness. In addition to these, laboratory CBR tests were undertaken. For the GT_S unit, the results of the tests are given in the following table.

Table 4-14 : GT_S - Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content (%)	CBR Top (%)	CBR Bottom (%)
BH AB003	7.0	10.0	4.7	4.7

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content (%)	CBR Top (%)	CBR Bottom (%)
BH AB005	3.0	13.0	0.9	1.6
BH AB005	8.0	13.0	0.3	1.2
BH AB009	3.0	15.0	0.1	0.2
BH AB011	6.0	9.5	15.0	7.5
BH AB031	1.2	10.0	2.7	2.2
BH AB031	2.0	14.0	0.6	0.6
BH AB031	3.0	11.0	1.7	1.8
BH AB031	5.0	13.0	0.6	0.5
BH AB034	0.5	10.0	13.0	17.0
BH AB034	3.0	14.0	0.7	0.9
BH AB034	5.0	11.0	2.1	2.1
BH KTB001	0.5	15.0	1.8	2.5
BH KTB001	2.1	16.0	0.2	0.8
BH KTB025	1.2	12.0	1.6	5.6
BH KTB025	9.5	9.0	11.0	11.0
TP AB005A	0.8	14.0	75.0	110.0
TP AB007	2.3	10.0	7.8	16.0
TP AB011	2.2	13.0	4.6	15.0
TP AB015	1.8	11.0	5.4	15.0
TP AB016	0.4	22.0	0.2	0.3
TP AB016	0.9	9.7	24.0	40.0
TP AB020	1.9	11.0	3.7	11.0
TP AB022	1.4	13.0	1.0	1.2
TP AB024	0.5	23.0	0.7	0.7
TP AB026	0.5	13.0	5.6	7.3
TP AB027	0.9	8.7	21.0	28.0
TP AB029	0.5	14.0	7.9	14.0
TP AB038	1.0	12.0	4.2	4.5
TP AB044	0.5	8.8	31.0	41.0
TP AB044	1.4	14.0	0.6	0.5
TP AB051	0.5	11.0	5.9	15.0
TP AB051	1.0	11.0	2.4	1.2
TP AB053	0.5	12.0	2.2	2.1
TP AB053	1.3	14.0	4.5	3.7
TP KTB006	2.1	12.0	3.0	9.1
TP KTB006	2.9	9.5	12.0	12.0
TP KTB007	0.5	11.0	25.0	19.0
TP KTB007	1.3	15.0	1.2	1.3
TP KTB007	2.2	14.0	1.1	0.9
TP KTB007	2.9	11.0	3.2	3.2
RANGE	**0.4 – 9.5**	**8.7 – 23.0**	**0.1 – 75.0**	**0.0 – 110.0**

Notes:
1. mbegl – metres below existing ground level.
2. CBR values over 50% are considered unrealistic and a limitation of the test on individual samples, for example where a large piece of gravel is close to the test plunger.

4.4.40 Results of unsoaked laboratory CBR tests are shown in the figure below. As the test is performed on both the top and the bottom of the sample, both results are quoted in the above table and are plotted in the figure below.

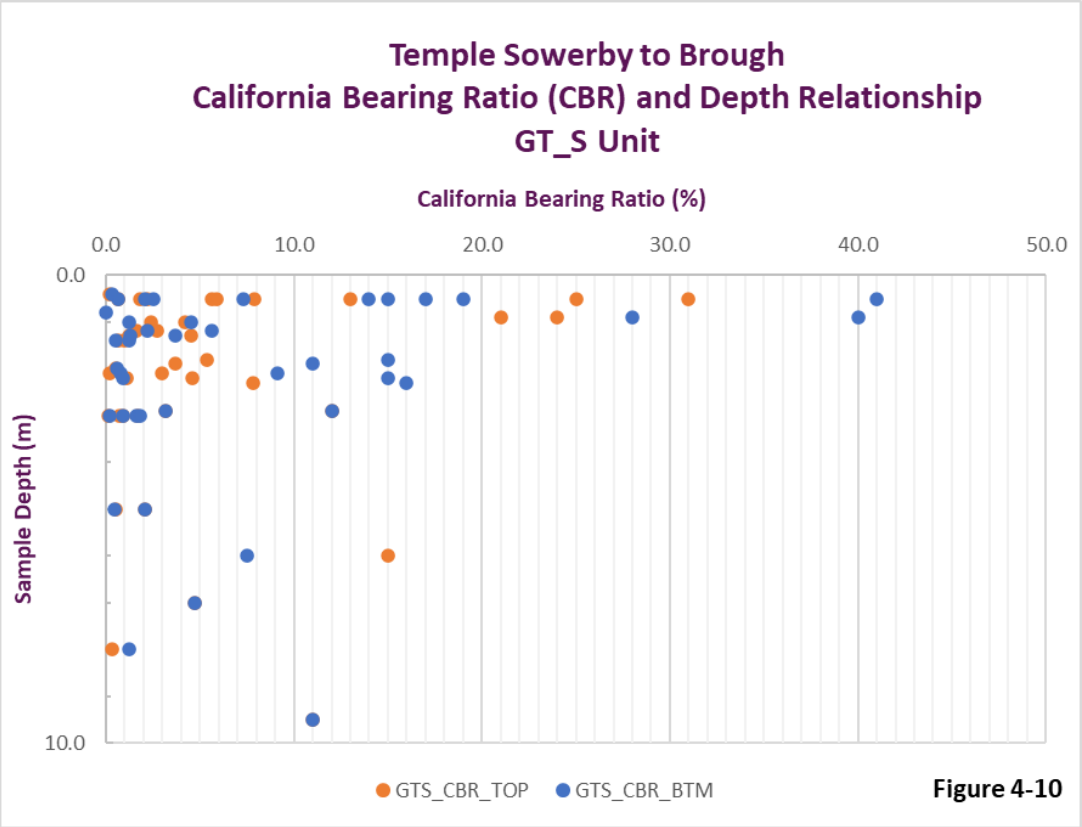

Figure 4-10 GT_S - Laboratory CBR and sample depth relationship

4.4.41 It is notable that results fall predominantly in the 0% to 20% CBR range, but occasional limitations of the test can lead to individual unexpected results. Although it is possible to have very low values of CBR (<0.5%), for natural soils an upper limit of 50% is typical. In this latter case, this would be on strong granular materials. Results of 75% and 110% in the data are not thought to be representative of the GT_S unit in situ.

4.4.42 Combining the laboratory tests with the in situ plate bearing tests values from Table 4-8 results in Figure 4-11 below.

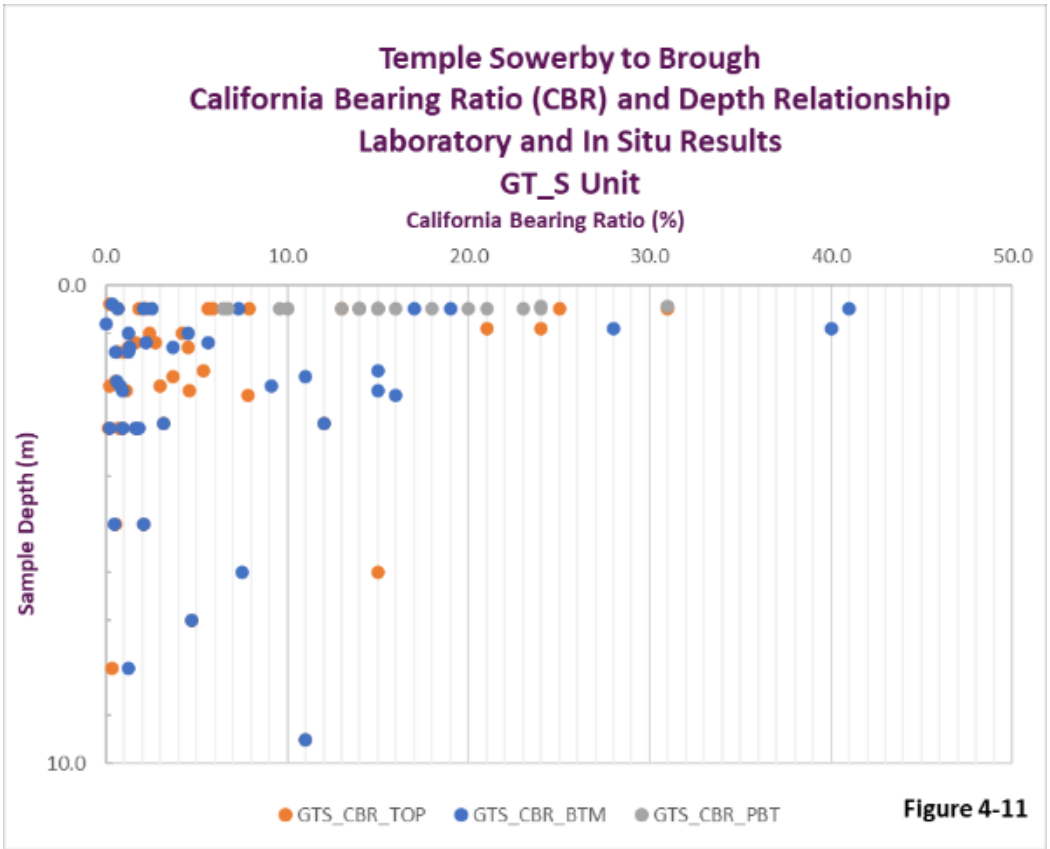

Figure 4-11 GT_S California Bearing Ratio versus depth (lab and in situ results)

4.4.43 Samples of soil were tested to determine sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (26). The pH and sulfate values for the GT_S unit are given in the table below. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10mg/l.

Table 4-15 : GT_S - pH and Sulfate Concentration - Soil

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
BH AB005	4.0	8.5	
BH AB009	3.0	8.6	14
BH AB009	7.0	6.7	
BH AB011	1.2	6.5	
BH AB014	1.2	6.9	
BH AB025	2.5	7.4	12
BH AB027	3.1	7.2	

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
BH AB028	3.0	8.1	11
BH AB032	3.0	8.3	
BH AB032	4.9	7.5	
BH AB033	0.3	6.7	
BH AB034	0.5	7.2	
BH AB037	0.3	7.3	
BH AB042	10.7	7.2	
BH KTB001	2.1	11	24
BH KTB004	0.6	6.8	16
BH KTB008	1.5	7.2	15
BH KTB028	2.0	7.1	11
TP AB001	0.5	7.7	230
TP AB002	0.3	7.6	
TP AB015	1.1	6.2	60
TP AB017	0.4	6.9	
TP AB019	0.4	7.1	370
TP AB026	0.9	6.4	10
TP AB027	0.9	7.7	20
TP AB029	0.5	6.7	24
TP AB037	0.4	7	
TP AB039	1.0	6.8	11
TP AB041	0.5	7	
TP KTB004	0.5	6.4	
TP KTB004	2.2	6.6	12
RANGE	**0.3 – 10.7**	**6.2 – 11.0**	**10 – 370**

Notes:
1. mbegl – metres below existing ground level.

4.4.44 In addition to soil samples, some water samples were also tested for sulfate concentration. Results are given in the table below.

Table 4-16 : GT_S - Sulfate Concentration - Water

Exploratory Holes	Sample Depth (mbegl) Note 1	Sulfate Concentration (mg/l)
BH AB005	4.0	50
BH AB009	7.0	54
BH AB027	3.1	20
BH AB032	4.9	12
BH AB042	10.7	190
RANGE	**4.0 – 10.7**	**50 - 190**

Notes:
1. mbegl – metres below existing ground level.

4.4.45 The approach to material test results summarisation above is now followed for the remaining geological units in the sections which follow. For granular deposits (FL_GT and SAND) these are likely to be summaries of the same tests. In the case of the cohesive tills (GT_V and GT_CO), undrained strength and plasticity are also likely to have been determined and will be presented as appropriate to ensure all laboratory tests are considered in the factual results summary under the corresponding “Test Results” headings. Following the factual summaries,

each material is addressed under a corresponding “Derived Parameters” heading. The purpose of the derived parameters section is to consider any relevant correlations which can also be applied to determine typical engineering design parameters. As noted at the start of this report, design stages require characteristic design parameters to be determined but this is not in the scope of the GIR. Instead, ranges of properties and parameters will be summarised for the overall Temple Sowerby to Brough area. The individual schemes are then considered against this background information and where particular results show an obvious variation, local ranges of the same properties and parameters will be noted. Where such variations are evident, the approach will be to describe these as exceptions from the general properties and parameters identified in the overall Temple Sowerby to Brough area.

Test Results – FL_GT (Fluvioglacial Till)

4.4.46 The FL_GT unit is a granular material with its origin in the outwash channels of the glaciers. Further glacial actions have generally resulted in sorting during transportation and wash-out of the finer fractions, leaving predominantly coarse sands and gravels, with varying cobble and boulder content. The table below lists the exploratory holes where the FL_GT unit was found.

Table 4-17 : Exploratory Holes - Fluvioglacial Till (FL_GT)

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Medium dense greyish brown very sandy slightly clayey subangular to rounded fine to coarse GRAVEL of mixed lithologies including mudstone with medium cobble content. Sand is fine to coarse. Medium dense becoming very dense light brown slightly sandy subangular to subrounded fine to coarse GRAVEL of mudstone and sandstone with medium cobble content. Sand is fine to coarse. Cobbles are subangular to subrounded of sandstone. Medium dense orangish brown slightly silty very sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to rounded fine to coarse of sandstone and infrequent mudstone.
BH AB018, BH AB019, BH AB019A, BH AB022, BH AB023, BH AB024, BH AB025, BH AB026, BH AB037, BH AB038, BH AB039, BH KTB024	0.30 – 8.00	
Trial Pits		
None	-	
Notes: 1. mbegl – metres below existing ground level		

4.4.47 The descriptions for fluvioglacial till in Table 4-17 are typical. Generally described as clayey or silty sandy GRAVEL, the coarse fractions of these soils (sands, gravels) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics of the whole soil matrix. This is discussed later in the ‘Derived Parameters’ section for the FL_GT unit.

4.4.48 In situ and laboratory test results for the FL_GT unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.49 Standard Penetration Tests were undertaken in boreholes for this unit. The raw test values were standardised to a hammer energy of 60% (N60) and the range of values is presented in the table below.

Table 4-18 : FL_GT - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
All boreholes	1.20 – 6.60	9 - 41
BH KTB series	5.00 - 6.00	13 - 23
BH KTA series	-	-
BH AB series	1.20 – 6.60	9 - 41
Notes: 1. mbegl – metres below existing ground level		

4.4.50 The SPT N60 values are shown in relation to test depth in Figure 4-12.

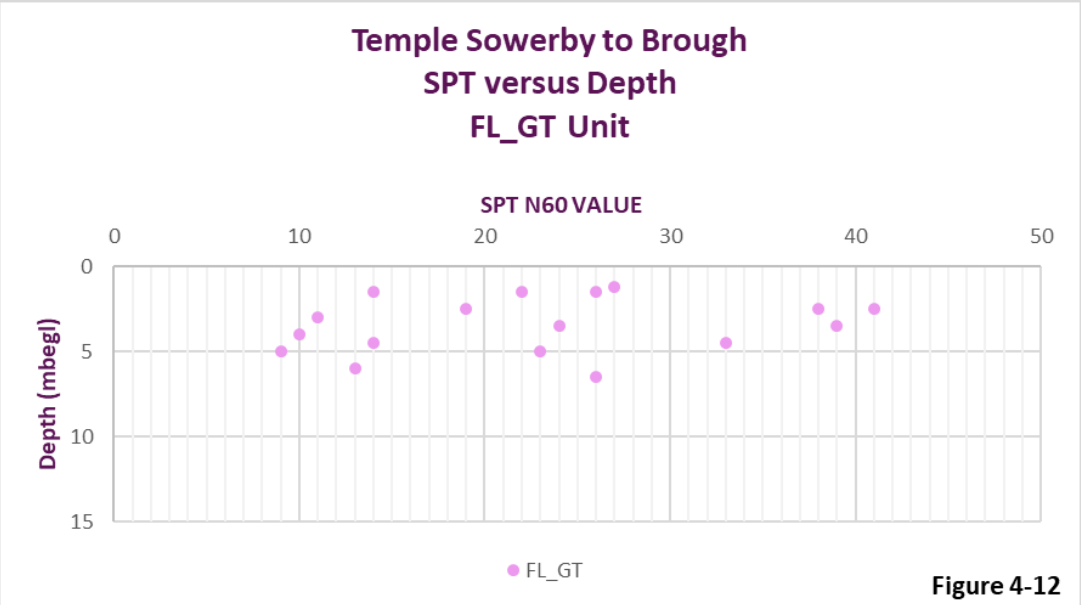

Figure 4-12 FL_GT - SPT N60 versus Depth

4.4.51 Although occasional SPT values from some tests exceeded 50, these tests did not complete the standard test drive length. Consequently, there were no valid calculated SPT N60 values either and these results are not included in the data above. Such values are often indicative of an obstruction in the test drive, such as a cobble, leading to unrepresentative results and have been excluded as noted, to focus on the range of results for completed standard tests.

4.4.52 The FL_GT unit was not encountered in any of the trial pits and hence no plate load tests were undertaken in this unit. Similarly, there were no LWD tests for the unit.

4.4.53 Given the absence of the FL_GT unit at shallow depth in the trial pits, there were no infiltration/soakaway tests in this unit.

4.4.54 In addition to the in situ tests described above, laboratory tests were undertaken for materials in the FL_GT unit. These are reported in the following sections

4.4.55 Particle size distributions (PSDs) were undertaken throughout the Temple Sowerby to Brough scheme area. As noted earlier, this material was encountered at depths from existing ground level up to 8.0mbegl. For the FL_GT unit, the materials have their origin in fluvioglacial till deposits with a varying range of particle sizes, but principally coarse material of sands and gravels with varying cobble content. The PSDs for the FL_GT unit are shown in the figure below.

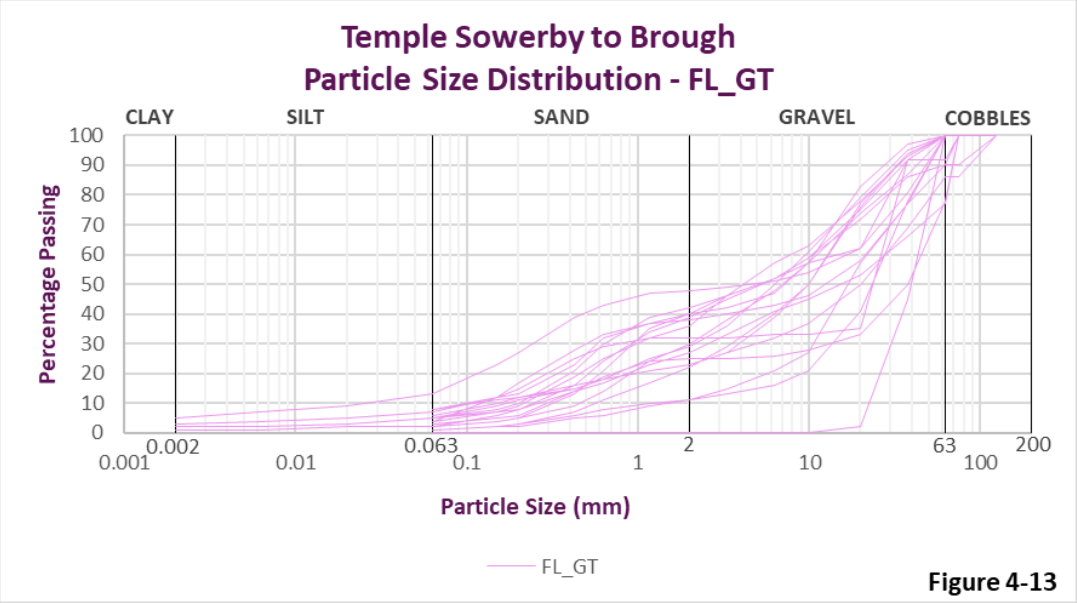

Figure 4-13 FL_GT - Particle Size Distribution

4.4.56 Atterberg Limits are used to determine the plasticity index for silt and clay sized fractions. For the granular tills, the clay and silt fraction do not dominate the overall soil matrix behaviour and are not discussed here. On occasion, where Atterberg Limits were determined for the FL_GT unit, plasticity index may have been determined, but this is not of relevance and is not reported here.

4.4.57 Strength of granular materials has been directly determined by shearbox testing. These tests determine the peak and residual internal angle of friction (phi) and any associated apparent cohesion (c). By definition, shearbox testing assumes full drainage (dissipation of pore pressures) during shearing and consequently, effective strength parameters are determined

(phi' and c'). For the FL_GT unit, the following table shows the testing undertaken and the strength parameters determined in each test.

Table 4-19 : FL_GT - Laboratory Shearbox Testing Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Shear Strength Parameters (c' kPa / phi' degrees)
BH AB018	1.50	0/44
BH AB025	1.50	6/32
BH AB026	1.20	11/36
BH AB039	3.50	2/36
RANGE	**1.50 – 3.50**	**32 to 44 Note 2**

Notes:
1. mbegl – metres below existing ground level
2. c' and phi' are complementary elements of the shear strength. However, c' can be an artefact of testing and is often ignored, so that the shear strength range is for the angle of shearing resistance phi' only. This range is reported here.

4.4.58 For the FL_GT unit, the variation of effective angle of internal friction with depth is shown in the figure below. With regard to the apparent effective cohesion, this can often be associated with testing limitations and is generally ignored. However, on some occasions it is feasible that the material in situ is very dense and cemented, possessing a built in shear resistance or apparent cohesion, but this is unlikely in a re-moulded specimen. Consequently, the c' values in the above table cannot be relied upon and have been discounted.

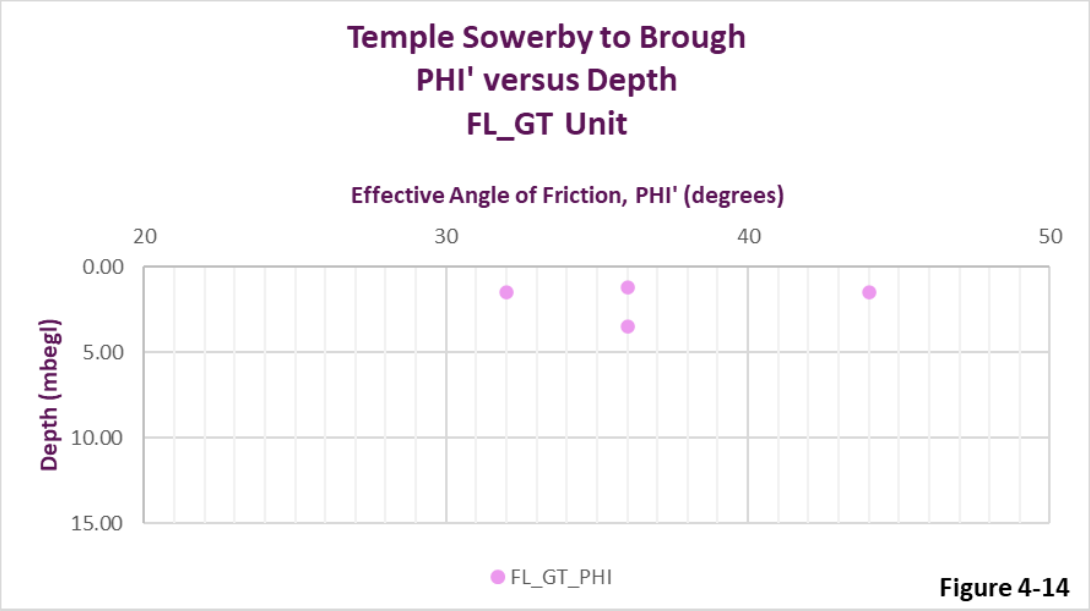

Figure 4-14 FL_GT - Variation of angle of internal friction with depth

4.4.59 There are standard correlations using SPT N value to determine internal angle of friction in granular materials. These are considered in the later 'Derived Parameters' section for the FL_GT unit.

4.4.60 The FL_GT material is a likely candidate for future re-use in earthworks, being free-draining and readily compacted. Compaction tests were undertaken on samples of the material and a relationship between dry density and moisture content was determined for each sample. The relationships for individual tests can be found in the 2021 GI Factual Report. The table below provides the maximum dry-density achieved for a given sample and the corresponding water content. For this material, only a single test result is available carried out with standard compaction (2.5kg).

Table 4-20 : FL_GT - Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Moisture Content At Maximum Dry Density (%)
BH AB008	4.00	2.14	7.9
RANGE	-	-	-

Notes:
1. mbegl – metres below existing ground level

4.4.61 The maximum dry density and corresponding moisture content result in the above table has been plotted in the figure below.

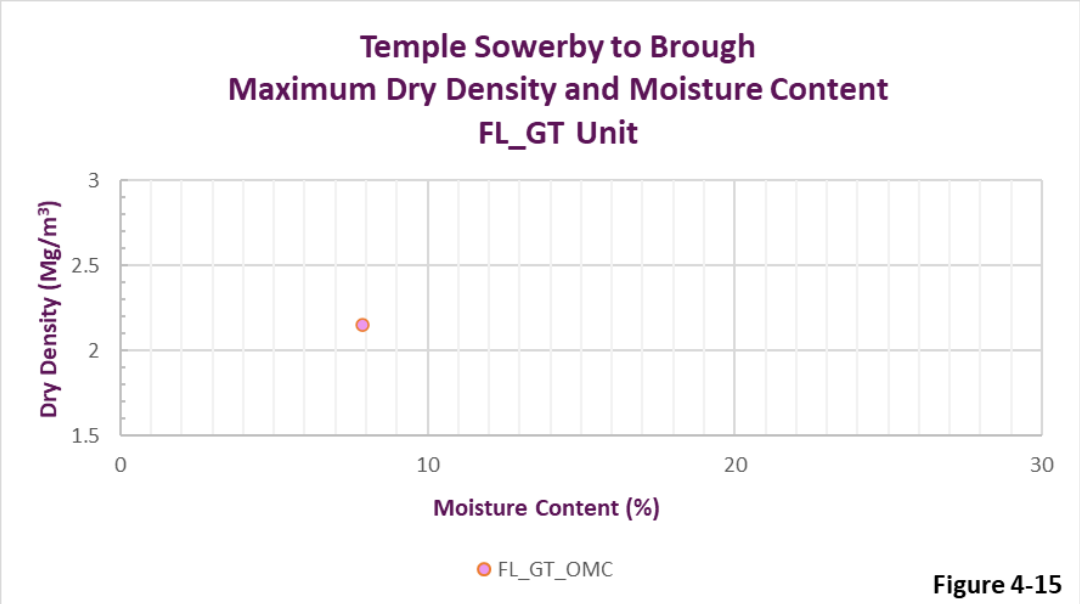

Figure 4-15 FL_GT - Maximum Dry Density and Moisture Content Range

4.4.62 In addition to the compaction testing which determined the relationship between dry density and moisture content, corresponding Moisture Condition Value (MCV) testing was undertaken. Although a very wide range of soils can be suitable for the MCV test, granular soils with limited fines can prove unsuitable for both single point and calibration determinations. Only a single MCV test was undertaken in the FL_GT unit. Given the

foregoing, for the FL_GT unit, the following table lists the details of the single MCV test undertaken. For this test, it was not possible to determine a value of MCV.

Table 4-21 : FL_GT - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH KTB024	6.0	Single	12.0	0
RANGE			-	-

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. Where Test Type is Single, the water content for the test is natural water content.

4.4.63 In situ plate bearing tests were described earlier, where equivalent CBR was determined indirectly by relationship with stiffness. There were however no plate bearing tests for the FL_GT unit. Similarly, there were no laboratory CBR tests undertaken for the FL_GT unit.

4.4.64 Samples of soil were tested to determine sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (26). The pH and sulfate values for the FL_GT unit are given in the table below. Only a single sample was tested in this material.

Table 4-22 : FL_GT - pH and Sulfate Concentration - Soil

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
BH AB038	0.3	6.7	12

Notes:
1. mbegl – metres below existing ground level.

4.4.65 There were no tests on water samples from the FL_GT unit.

Test Results – GT_V (Cohesive Glacial Till – Sandy)

4.4.66 The GT_V unit is a fine grained material with its origin in the lodgement tills. This particular unit exhibits a high proportion of sand in the mixture and the unit is described as clayey SAND or sandy CLAY. The table below lists the exploratory holes where the GT_V unit was found.

Table 4-23 : Exploratory Holes - Granular Glacial Till (GT_V)

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		
BH AB001, BH AB002, BH AB003, BH AB006, BH AB006A, BH AB008, BH AB009, BH AB010, BH AB011, BH AB012, BH AB012A, BH AB014, BH AB015, BH AB019, BH AB019A, BH AB020, BH AB021, BH AB022, BH AB026, BH AB027, BH AB028, BH AB029, BH AB030, BH AB031, BH AB032, BH AB033, BH AB034, BH AB035, BH AB037, BH AB038,	0.00 – 10.45	Loose to medium dense orangish brown very clayey fine to coarse SAND and subangular to subrounded fine to coarse GRAVEL of mixed lithologies. Reddish brown and yellow slightly gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse grey sandstone, mudstone and quartzite.

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
BH AB040, BH AB041, BH AB043, BH AB044, BH AB048, BH KTA007, BH KTA014, BH KTA018, BH KTB002, BH KTB005, BH KTB007, BH KTB008, BH KTB009, BH KTB010, BH KTB011, BH KTB012, BH KTB013, BH KTB015, BH KTB016, BH KTB016A, BH KTB018, BH KTB020, BH KTB021 mining, BH KTB024, BH KTB036, WS AB007		Firm orangish brown gravelly sandy CLAY with medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies including mudstone, quartzite and sandstone. Cobbles are subangular to subrounded of mixed lithologies including psammite. Soft to firm reddish brown gravelly very sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone. Orangish brown with localised greyish mottling gravelly clayey fine to coarse SAND with low cobble content. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles are subangular to subrounded of mixed lithologies including sandstone. Firm medium strength reddish brown with localised yellowish mottling sandy gravelly CLAY with low cobble content and low boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles and boulder are subangular to subrounded of mixed lithologies including sandstone.
Trial Pits		
TP AB.borrowpit02, TP AB.borrowpit03, TP AB.borrowpit04, TP AB001, TP AB002, TP AB005, TP AB007, TP AB009, TP AB010, TP AB011, TP AB014, TP AB016, TP AB018, TP AB019, TP AB022, TP AB023, TP AB024, TP AB025, TP AB026, TP AB027, TP AB028, TP AB029, TP AB032, TP AB034, TP AB035, TP AB036, TP AB037, TP AB040, TP AB041, TP AB042, TP AB044, TP AB045, TP AB046, TP AB049, TP AB050, TP AB051, TP AB052, TP AB055, TP KTA004, TP KTA005, TP KTA007, TP KTA008, TP KTA009, TP KTA016, TP KTA019, TP KTB002, TP KTB003, TP KTB006, TP KTB007, TP KTB008, TP KTB009, TP KTB010, TP KTB011, TP KTB014, TP KTB018, TP KTB019, TP KTB022	0.00 – 3.50	
Notes: 1. mbegl – metres below existing ground level		

4.4.67 The descriptions for glacial till (sandy) in Table 4-23 are typical. Generally described as gravelly clayey SAND or gravelly sandy CLAY, the fine fractions of these soils (clay) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics of the whole soil matrix. This is discussed later in the 'Derived Parameters' section for the GT_V unit.

4.4.68 In situ and laboratory test results for the GT_V unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.69 Standard Penetration Tests were undertaken in boreholes for this unit. The raw test values were standardised to a hammer energy of 60% (N60) and the range of values is presented in the table below.

Table 4-24 : GT_V - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
All boreholes	1.20 – 10.0	4 - 44
BH KTB series	1.20 – 5.00	6 - 42
BH KTA series	-	-
BH AB series	1.20 – 10.00	4 - 44

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
Notes: 1. mbegl – metres below existing ground level		

4.4.70 The SPT N60 values are shown in relation to test depth in Figure 4-16.

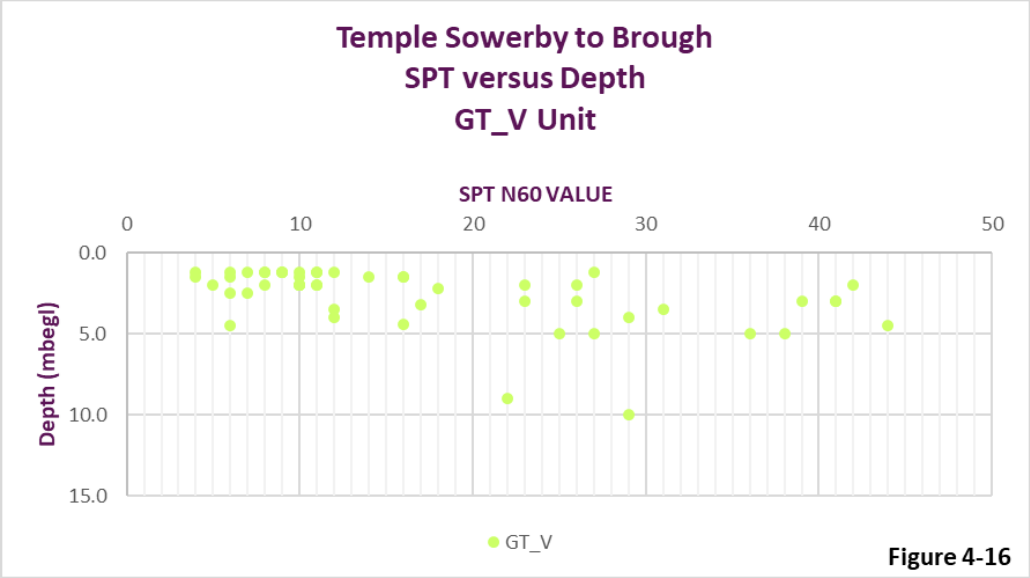

Figure 4-16 GT_V Unit - SPT N60 versus Depth

4.4.71 Although occasional SPT values from some tests exceeded 50, these tests did not complete the standard test drive length. Consequently, there were no valid calculated SPT N60 values either and these results are not included in the data above. Such values are often indicative of an obstruction in the test drive, such as a cobble, leading to unrepresentative results and have been excluded as noted, to focus on the range of results for completed standard tests.

4.4.72 Plate load tests were undertaken in this unit to determine subgrade surface modulus directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Tests were undertaken in trial pits in several locations, at depths between 0.45m and 0.5m below existing ground level. For the GT_V unit, these test results are given in the table below.

Table 4-25 : GT_V - Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Subgrade Surface Modulus, Es (MPa/m)	Equivalent CBR (%)
TP AB009	0.4	60.9	12
TP AB010	0.5	16.1	1
TP AB025	0.5	81.5	20
TP AB034	0.5	136.8	49
TP AB036	0.5	257.3	145

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
TP AB051	0.5	84.0	21
TP KTA019	0.5	56.8	11
TP KTB009	0.5	77.1	18
TP KTB010	0.5	29.2	3
TP KTB019	0.5	101.6	29
RANGE	**0.45 – 0.50**	**16.1 – 257.3**	**1 - 145**
Notes: 1. mbegl – metres below existing ground level			

4.4.73 In addition to the plate bearing tests reported above, subgrade surface stiffness modulus was determined using lightweight deflectometer (section 3.4). Results are presented in the following table.

Table 4-26 : GT_V - Lightweight Deflectometer Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Subgrade Surface Stiffness Modulus Emin / Emax/Eaverage (MPa) Note 2
TP AB034	0.50	87/102/93
TP AB036	0.50	54/90/78
RANGE	**-**	**54 -102**
Notes: 1. mbegl – metres below existing ground level 2. Emin and Emax and Eaverage determined from between 6 and 10 individual readings per test.		

4.4.74 Soakaway tests described in section 3.4 were undertaken in a number of trial pits. In general, these did not reveal measurable infiltration rates, due to the very low permeability of the materials present. Only one test in the GT_V unit produced an infiltration rate as shown in the table below.

Table 4-27 : GT_V - Soakaway Test Results

Exploratory Holes	Test Pit Depth (mbegl) Note 1	Infiltration Rate (m/s)
TP KTB008	2.05	3.76×10^{-6}
TP AB007	2.20	Not determined
TP AB019	2.00	Not determined
Notes: 1. mbegl – metres below existing ground level		

4.4.75 For the GT_V unit, it was also appropriate to measure in situ undrained shear strength where possible. A hand shear vane was used for this purpose, during excavation of trial pits. The vane allowed assessment of both peak and residual undrained strength. Typically three number tests were taken for the peak determination and similarly, three tests for the residual value. Results are given in the table below, with columns for Peak and Residual to highlight the clear reduction in strength following peak.

Table 4-28 : GT_V - Undrained shear strength - Hand Shear Vane

Exploratory Holes	Test Depth Range (mbegl) Note 1	Hand Shear Vane Results Peak Values Min/Max/Average (kPa)	Hand Shear Vane Results Residual Values Min/Max/Average (kPa)
All exploratory holes	0.35 – 3.00	11/106/43	7/32/17
KTB series	0.50 – 2.00	30/67/50	15/25/18
KTA series	0.35 – 3.00	55/106/78	26/32/29
AB series	1.00 – 3.00	11/39/25	7/23/12
Notes: 1. mbegl – metres below existing ground level			

4.4.76 In addition to the in situ tests described above, laboratory tests were undertaken for materials in the GT_V unit. These are reported in the following sections.

4.4.77 Particle size distributions (PSDs) were undertaken throughout the Temple Sowerby to Brough scheme area. As noted earlier, this material was encountered at depths from existing ground level up to 10.45mbegl. For the GT_V unit, the materials have their origin in Glacial Till with a varying range of particle sizes, but principally fine material with a significant proportion of sand and/or gravel. The PSDs for the GT_V unit are shown in the figure below.

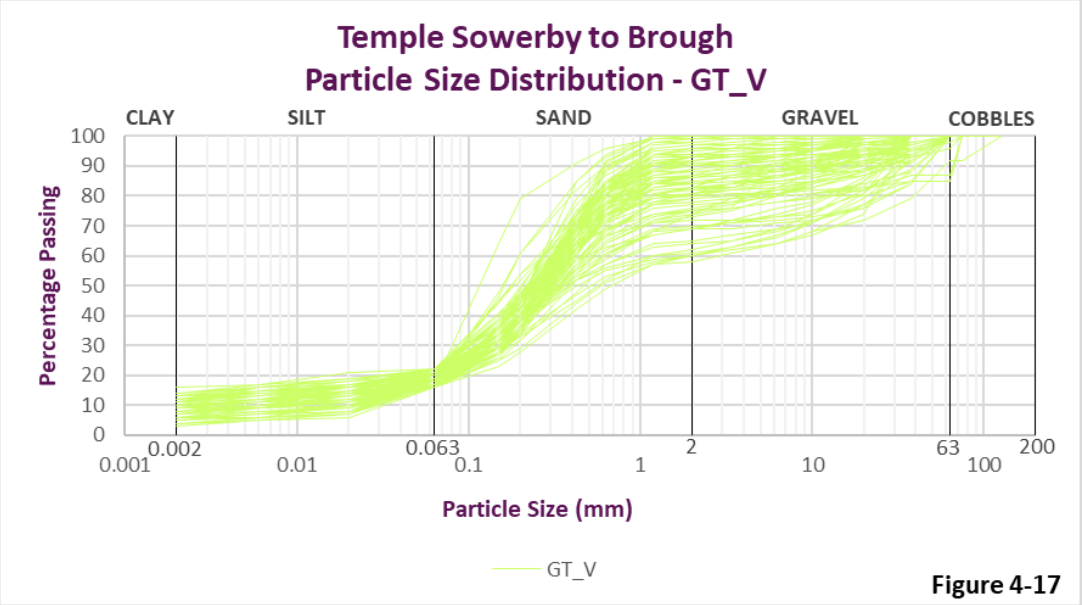

Figure 4-17 GT_V - Particle Size Distribution

4.4.78 Atterberg Limits are used to determine the plasticity index for silt and clay sized fractions. For the fine grained tills, the clay and silt fractions dominate the overall soil matrix behaviour. A plot of plasticity index against liquid limit is used to characterise the fine fraction. In the figure below, it can be seen that the majority of samples classify as clay of low plasticity.

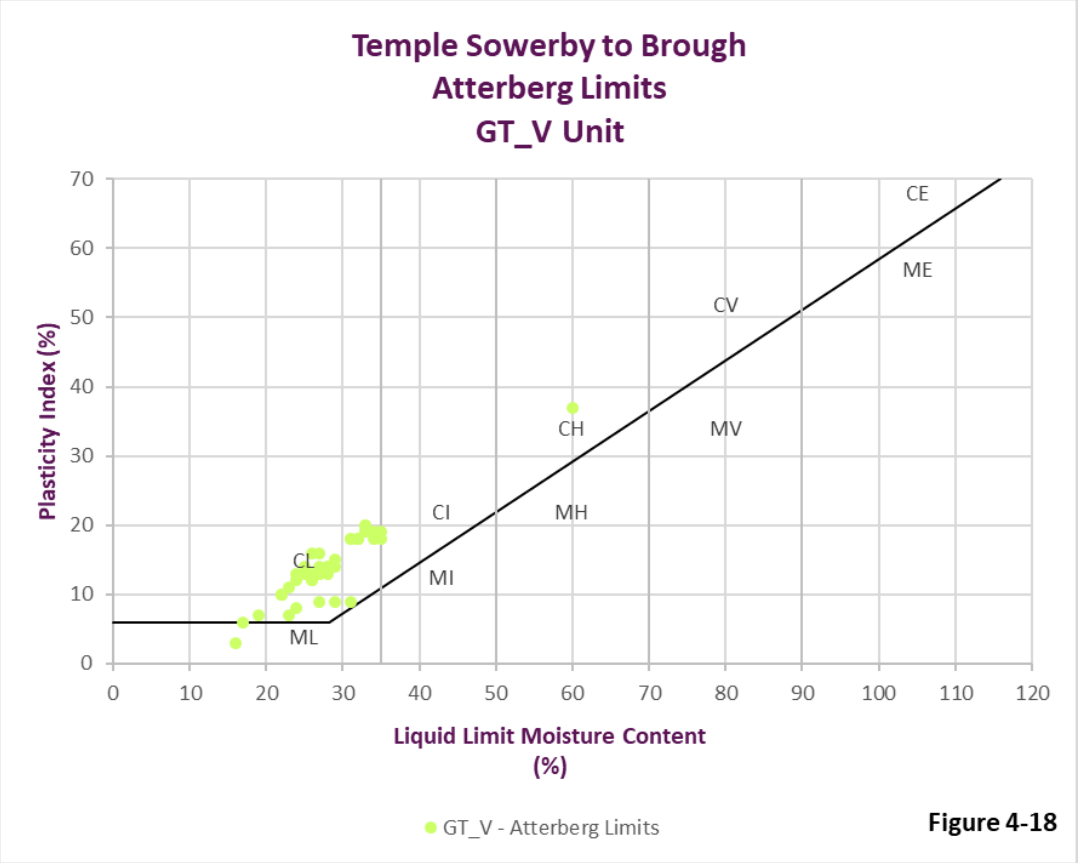

Figure 4-18 GT_V Atterberg Limits

4.4.79 The relationship between natural moisture content and the plastic limit moisture content is a determinant of re-usability of excavated fine soil in its natural or 'as-dug' condition. The SHW uses this relationship to classify suitability as fill and generally allows a range of moisture contents around the plastic limit.

4.4.80 In the SHW, the **upper** limit moisture content designating Class 2B **dry** cohesive fills is set at (PL-4%). It follows that any material with a natural as-dug moisture content greater than (PL-4%) will therefore exceed this upper limit and will be designated as Class 2A **wet** cohesive fill.

4.4.81 In Figure 4-19 below, the difference between the natural moisture content and (PL-4%) is shown, in addition to the variation with depth. Positive values on the X-axis (NMC-[PL-4]) denote samples which are wet of the upper limit for dry cohesive fill (Class 2B), while the reverse applies for negative values. This effectively means that all the GT_V material is Class 2A **wet** cohesive fill. The impact on suitability and re-use is discussed in the later earthworks appraisal sections.

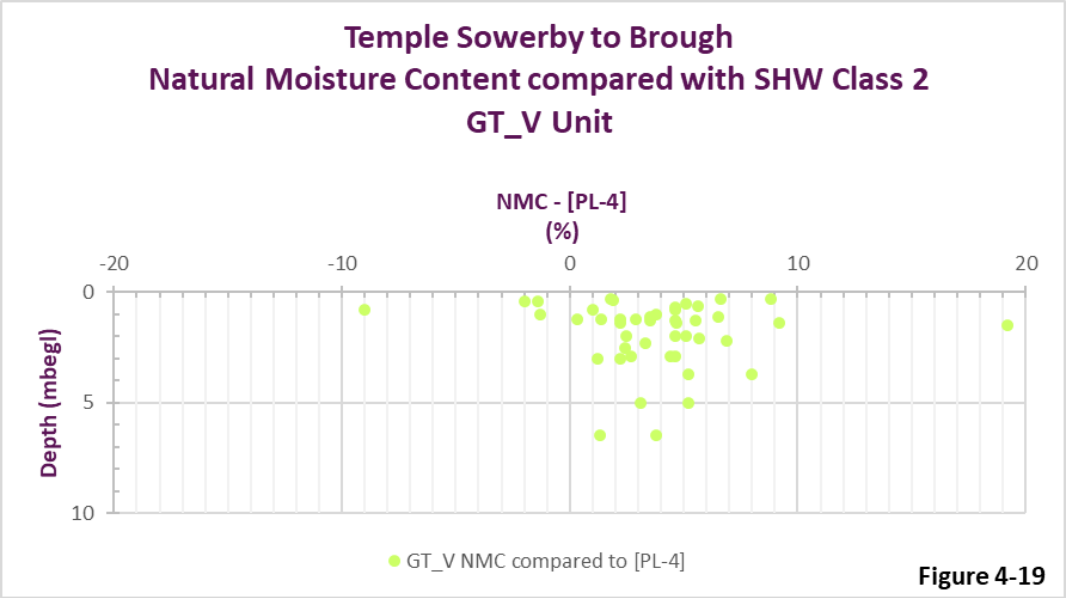

Figure 4-19 GT_V - Natural Moisture Content and SHW Class 2 limit versus Depth

4.4.82 Strength of fine grained (cohesive) materials has been determined by laboratory triaxial testing. Triaxial tests were undertaken for both undrained and drained conditions to determine shear strength in accordance with the methodology described in section 4.2 earlier.

4.4.83 Undrained shear strength (C_u) was determined for a number of samples of GT_V. To determine likely behaviour under new construction loading, lateral cell pressures in the triaxial tests were set close to the in situ values, in general. Unconsolidated undrained tests were undertaken at these cell pressures and the results are given in the table below. Where undrained multi-stage tests were undertaken, the figure reported in the table is the arithmetic mean of the individual stage results (rounded to zero decimal places). Where sample type is given as “UT” the test has been undertaken on an undisturbed sample. Sample type of “B” applies to tests undertaken on remoulded material.

Table 4-29 : GT_V - Unconsolidated undrained shear strength from triaxial tests

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Unconsolidated Undrained Shear Strength, C_u (kPa)
KTB series			
TP KTB006	2.1	B	64
KTA series			
None	-	-	-
AB series			
BH AB003	3.0	B	35
BH AB011	5.0	UT	152
BH AB012	0.9	B	7
BH AB022	2.5	B	27
BH AB031	6.5	UT	83
BH AB044	6.0	UT	5
TP AB002	0.8	B	20
TP AB023	2.3	B	29
TP AB025	2.2	B	27
TP AB046	3.0	B	22
RANGE	**0.8 – 6.5**	**-**	**5 - 152**

Notes:
1. mbegl – metres below existing ground level
2. B = Bulk sample, remoulded for test; UT = "Undisturbed" thin wall tube sample.

4.4.84 Consolidated undrained triaxial tests were undertaken on a number of samples. These tests use a set of specimens (or a multi-stage test on one specimen) to determine a failure envelope, defined by an angle of friction (phi) and any associated apparent cohesion (c). Measurement of pore pressure during testing allows effective stresses to be calculated and consequently, effective strength parameters are determined (phi' and c'). The following table shows the testing undertaken and the strength parameters determined in the only test undertaken in the GT_V unit.

Table 4-30 : GT_V - Triaxial Testing (Effective Stress)

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Test Type Note 3	Triaxial Testing CUT with PPM Note 4 Shear Strength Parameters	
				C' (kPa)	PHI' (degrees)
KTB series					
None					
KTA series					
None					
AB series					
BH AB010	4.0	UT	CUM	4.0	35.0

Notes:
1. mbegl – metres below existing ground level.
2. B = Bulk sample, remoulded for test; UT = "Undisturbed" thin wall tube sample.
3. CU – Single stage test; CUM – Multi-stage on a single specimen.
4. CUT – Consolidated Undrained Triaxial Compression; PPM – Pore Pressure Measurement

4.4.85 The GT_V unit was often described as sand on the preliminary logs and thought to be unsuitable for triaxial testing. Given the later assessment of the material, it is a fine-grained soil and further triaxial testing will be undertaken in the subsequent phase of investigation.

4.4.86 Compressibility and consolidation of fine material were determined by one-dimensional oedometer testing (described in 4.2). For the GT_V unit, there were no consolidation tests undertaken, again given the expected nature of material described as sand. In addition, many

scheduled tests were the subject of ATN (described in 3.8.9) and deemed unsuitable, usually as a result of coarse gravel content. This would generally be unsuitable for oedometer testing. With the recent understanding that this sandy glacial till (GT_V) has fine-grained, cohesive material behaviour, further oedometer testing in this material will be attempted in the subsequent phase of investigation, although the gravel content may still limit the suitability of samples for this type of test.

4.4.87 The GT_V material is a likely candidate for future re-use in earthworks. 29 no compaction tests were undertaken on samples of the material and a relationship between dry density and moisture content was determined for each sample. Of the tests all except one were compacted to Standard Proctor. The relationships for individual tests can be found in the 2021 GI Factual Report. The table below provides the maximum dry-density achieved for a given sample and the corresponding water content.

Table 4-31 : GT_V - Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Moisture Content At Maximum Dry Density (%)
KTB series			
BH KTB002	2.00	2.02	9.0
BH KTB015	3.00	2.08	11.0
BH KTB018	3.00	1.98	10.0
BH KTB018	4.00	2.05	8.5
BH KTB020	1.20	2.04	9.9
BH KTB021 mining	1.20	1.85	13.0
BH KTB036	2.00	2.07	9.9
TP KTB008	0.80	2.02	12.0
TP KTB011	2.00	1.91	13.0
KTA series			
None			
AB series			
BH AB003	2.00	2.04	9.7
BH AB020	2.50	1.97	11.0
BH AB020	3.50	1.99	12.0
BH AB029	4.70	1.83	12.0
BH AB030	0.40	2.03	9.7
BH AB030	3.00	2.01	8.6
BH AB034	5.00	2.20	5.9
TP AB.borrowpit02	1.00	2.03	9.0
TP AB.borrowpit03	0.65	1.84	12.0
TP AB001	2.10	1.94	11.0
TP AB002	0.80	2.05	10.0
TP AB005	1.00	1.98	10.0
TP AB007	2.30	2.03	8.2
TP AB019	1.70	2.01	10.0
TP AB022	0.40	1.99	9.9
TP AB027	1.40	2.05	9.3
TP AB035	1.90	1.76	14.0
TP AB040	0.80	1.91	13.0
TP AB046	0.30	1.99	11.0
TP AB046	2.10	2.04	9.5
RANGE	**0.30 – 5.00**	**1.76 – 2.20**	**5.9 - 14.0**

Notes:
1. mbegl – metres below existing ground level

4.4.88 The maximum dry density and corresponding moisture contents in the above table have been plotted in the figure below.

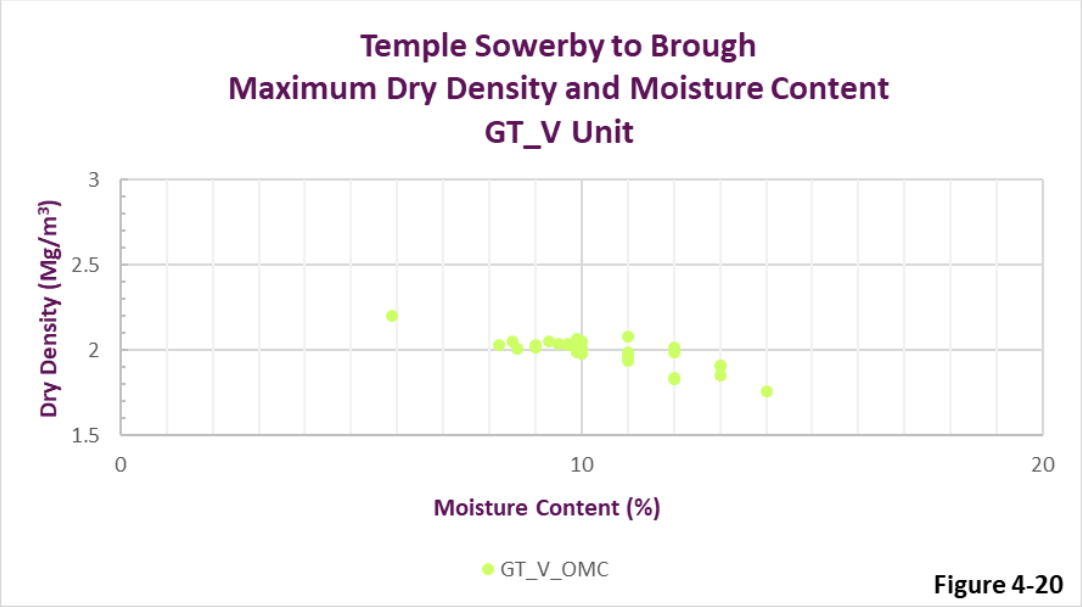

Figure 4-20 GT_V - Maximum Dry Density and Moisture Content Range

4.4.89 In addition to the compaction testing which determined the relationship between dry density and moisture content, corresponding Moisture Condition Value (MCV) testing was undertaken. This test is aligned with compliance and quality control during earthworks filling operations. It provides a rapid means of assessing material suitability for filling without the requirement to measure the material moisture content. Instead, the expected effort to achieve near complete compaction is measured by a blow count in standard test apparatus, where a function of the blow count at near full compaction is referred to as the MCV. MCV is determined at natural moisture content (single point) and is also determined on a range of moisture contents to provide a calibration line. The calibration line can then be used to provide a range of maximum and minimum values of MCV that equate to a satisfactory level of compaction for a given soil. Although a very wide range of soils can be suitable for the MCV test, granular soils with limited fines can prove unsuitable for both single point and calibration determinations. Given the foregoing, for the GT_V unit, the following table lists the MCV tests undertaken.

Table 4-32 : GT_V - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH AB009	5	Calibration	10.3	2.4
BH AB009	5	Calibration	9.9	4.8
BH AB009	5	Calibration	8.8	6.7
BH AB009	5	Calibration	7.9	10.3

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH AB009	5	Calibration	6.4	13.3
BH AB010	3.7	Calibration	12.2	3.1
BH AB010	3.7	Calibration	9.2	7.6
BH AB010	3.7	Calibration	10.2	5.6
BH AB010	3.7	Calibration	8.8	9.4
BH AB020	2.5	Single	15.0	1.8
BH AB020	3.5	Single	13.0	3.3
BH AB020	4.5	Calibration	11.6	6.1
BH AB020	4.5	Calibration	10.5	8.0
BH AB020	4.5	Calibration	9.6	12.1
BH AB020	4.5	Calibration	12.9	3.3
BH AB029	3	Single	12.0	4.3
BH AB030	1.2	Single	13.0	5.4
BH AB030	5	Single	12.0	2.1
BH AB031	2	Calibration	13.8	1.4
BH AB031	2	Calibration	12.3	4.2
BH AB031	2	Calibration	8.5	10.6
BH AB031	2	Calibration	12.7	2.8
BH AB031	2	Calibration	11.7	5.1
BH AB032	5	Calibration	9.9	5.7
BH AB032	5	Calibration	9.5	7.4
BH AB032	5	Calibration	8.6	9.5
BH AB032	5	Calibration	8.5	10.4
BH AB033	1.2	Calibration	12.4	4.1
BH AB033	1.2	Calibration	11.1	7.4
BH AB033	1.2	Calibration	10.1	8.3
BH AB033	1.2	Calibration	8.7	8.5
BH AB034	3	Calibration	13.4	1.0
BH AB034	3	Calibration	11.0	7.3
BH AB034	3	Calibration	8.8	9.8
BH AB034	3	Calibration	6.9	13.3
BH AB034	3	Calibration	11.4	6.1
BH AB044	1.5	Calibration	14.4	5.4
BH AB044	1.5	Calibration	13.1	8.0
BH AB044	1.5	Calibration	12.3	9.3
BH AB044	1.5	Calibration	15.5	3.7
BH AB044	4.5	Calibration	14.8	6.6
BH AB044	4.5	Calibration	14.6	7.9
BH AB044	4.5	Calibration	15.5	4.9
BH AB044	4.5	Calibration	12.4	12.1
BH KTB012	0.6	Single	12.0	9.9
BH KTB012	1.5	Single	12.0	0.0
BH KTB016A	0.5	Single	17.0	4.8
BH KTB016A	1.2	Single	15.0	4.3
BH KTB018	1.2	Calibration	18.1	4.7
BH KTB018	1.2	Calibration	15.8	8.1
BH KTB018	1.2	Calibration	13.9	10.4
BH KTB018	1.2	Calibration	12.4	12.5
BH KTB020	2	Calibration	12.2	4.9
BH KTB020	2	Calibration	11.1	8.7
BH KTB020	2	Calibration	9.4	10.7
BH KTB020	2	Calibration	8.2	12.5
BH KTB021 mining	0.8	Calibration	14.8	3.1
BH KTB021 mining	0.8	Calibration	13.6	4.2
BH KTB021 mining	0.8	Calibration	10.1	6.8
BH KTB021 mining	0.8	Calibration	8.5	7.6
BH KTB024	0.5	Single	18.0	8.4
TP AB005	2.2	Single	15.0	2.0
TP AB007	2.3	Single	10.0	0.0
TP AB032	0.9	Single	11.0	3.5
TP AB032	3	Single	10.0	5.8
TP AB036	1.4	Single	13.0	1.4
TP AB036	2.9	Single	12.0	2.2
TP AB040	0.4	Calibration	15.6	0.0

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
TP AB040	0.4	Calibration	14.6	1.5
TP AB040	0.4	Calibration	13.4	5.0
TP AB040	0.4	Calibration	11.0	8.6
TP AB040	0.4	Calibration	10.6	9.8
TP AB041	1.1	Single	12.0	3.1
TP AB044	1.4	Single	14.0	1.2
TP AB046	3	Single	13.0	2.1
TP AB050	3	Calibration	9.8	9.9
TP AB050	3	Calibration	10.9	6.0
TP AB050	3	Calibration	12.0	5.9
TP AB050	3	Calibration	11.9	5.1
TP AB052	1.5	Calibration	10.3	3.6
TP AB052	1.5	Calibration	8.5	4.3
TP AB052	1.5	Calibration	7.5	7.4
TP AB052	1.5	Calibration	6.7	10.1
TP AB.borrowpit03	0.65	Calibration	11.1	3.1
TP AB.borrowpit03	0.65	Calibration	9.1	5.0
TP AB.borrowpit03	0.65	Calibration	7.5	4.9
TP AB.borrowpit03	0.65	Calibration	4.4	6.4
TP AB.borrowpit04	0.8	Calibration	11.5	6.2
TP AB.borrowpit04	0.8	Calibration	9.9	9.7
TP AB.borrowpit04	0.8	Calibration	12.4	3.1
TP AB.borrowpit04	0.8	Calibration	10.4	9.9
TP AB.borrowpit04	0.8	Calibration	8.6	11.1
TP KTA019	0.4	Single	15.0	6.7
TP KTB007	1.3	Single	15.0	3.9
RANGE	**0.40 – 5.00**		**4.4 – 18.1**	**0.0 – 13.3**

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. Where Test Type is Single, the water content for the test is natural water content.

4.4.90 The MCV value and moisture content data pairs for all results are given in the figure below, showing the range of potential MCV values and corresponding moisture contents. The individual results from each calibration test are also shown, rather than each calibration line. Individual calibration lines can be viewed in the 2021 GI Factual Report. The calibration test results used a range of five moisture contents where possible with the natural moisture content covered within the range if possible, Some 3% of the results returned mcv values of less than 1 on a varying range of moisture contents (12% to 15.6%).

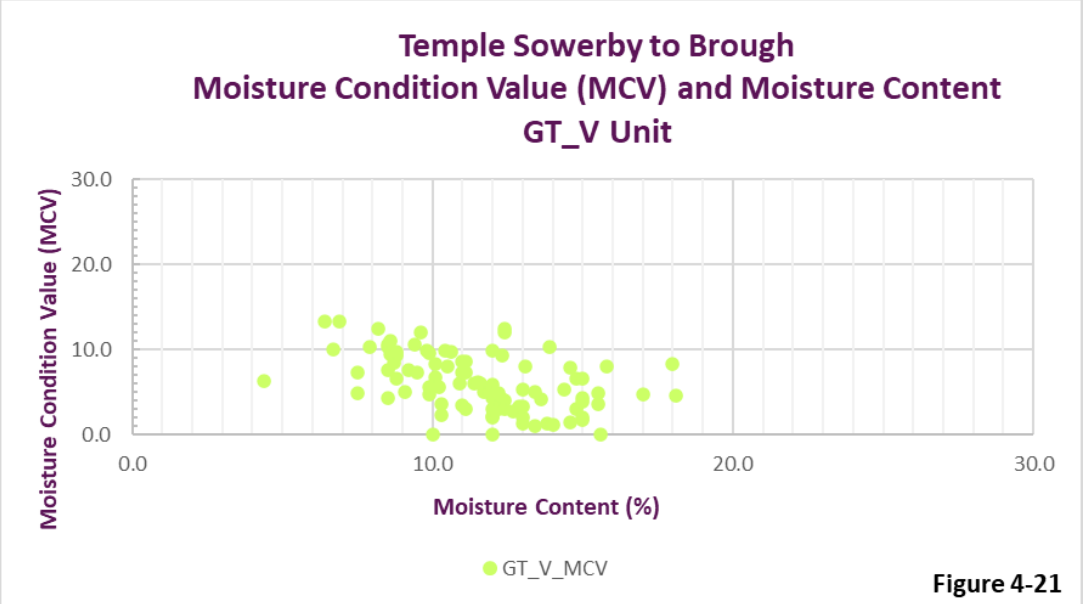

Figure 4-21 GT_V - Moisture Condition Value (MCV) and Moisture Content Relationship

4.4.91 In situ plate bearing tests were described above, where equivalent CBR was determined indirectly by relationship with stiffness. In addition to these, laboratory CBR tests were undertaken. For the GT_V unit, the results of the tests are given in the following table.

Table 4-33 : GT_V - Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content (%)	CBR Top (%)	CBR Bottom (%)
BH AB027	0.9	15.0	0.63	0.78
BH AB029	3.0	13.0	1.70	1.70
BH AB030	4.0	9.4	8.00	34.00
BH AB030	5.0	11.0	0.96	0.90
BH AB031	2.0	14.0	0.55	0.56
BH AB031	5.0	13.0	0.55	0.48
BH AB032	1.2	13.0	0.46	0.40
BH AB034	3.0	14.0	0.72	0.92
BH AB034	5.0	11.0	2.10	2.10
BH KTB016A	0.5	15.0	1.40	1.50
BH KTB016A	1.2	15.0	1.50	1.20
TP AB.borrowpit02	1.0	12.0	1.90	2.70
TP AB.borrowpit04	0.8	11.0	5.00	4.50
TP AB002	0.8	11.0	5.90	5.30
TP AB005	2.2	15.0	0.40	0.90
TP AB007	2.3	10.0	7.80	16.00
TP AB023	1.2	13.0	1.50	1.20
TP AB024	0.5	23.0	0.66	0.66
TP AB025	1.3	17.0	0.55	0.45
TP AB026	0.5	13.0	5.60	7.30
TP AB035	1.9	7.3	11.00	14.00
TP AB037	1.1	13.0	1.00	1.30
TP AB044	1.4	14.0	0.64	0.50
TP AB049	0.3	13.0	0.76	0.90
TP AB051	0.5	11.0	5.90	15.00
TP AB055	0.6	13.0	1.70	6.80
TP KTB006	2.1	12.0	3.00	9.10
TP KTB007	1.3	15.0	1.20	1.30

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content (%)	CBR Top (%)	CBR Bottom (%)
TP KTB007	2.2	14.0	1.10	0.90
TP KTB022	2.8	15.0	0.30	0.36
RANGE	**0.3 – 5.0**	**7.3 – 23.0**	**0.3 – 11.0**	**0.36 – 34.0**

Notes:
1. mbegl – metres below existing ground level.

4.4.92 Results of unsoaked laboratory CBR tests are shown in the figure below. As the test is performed on both the top and the bottom of the sample, both results are quoted in the above table and are plotted in the figure below.

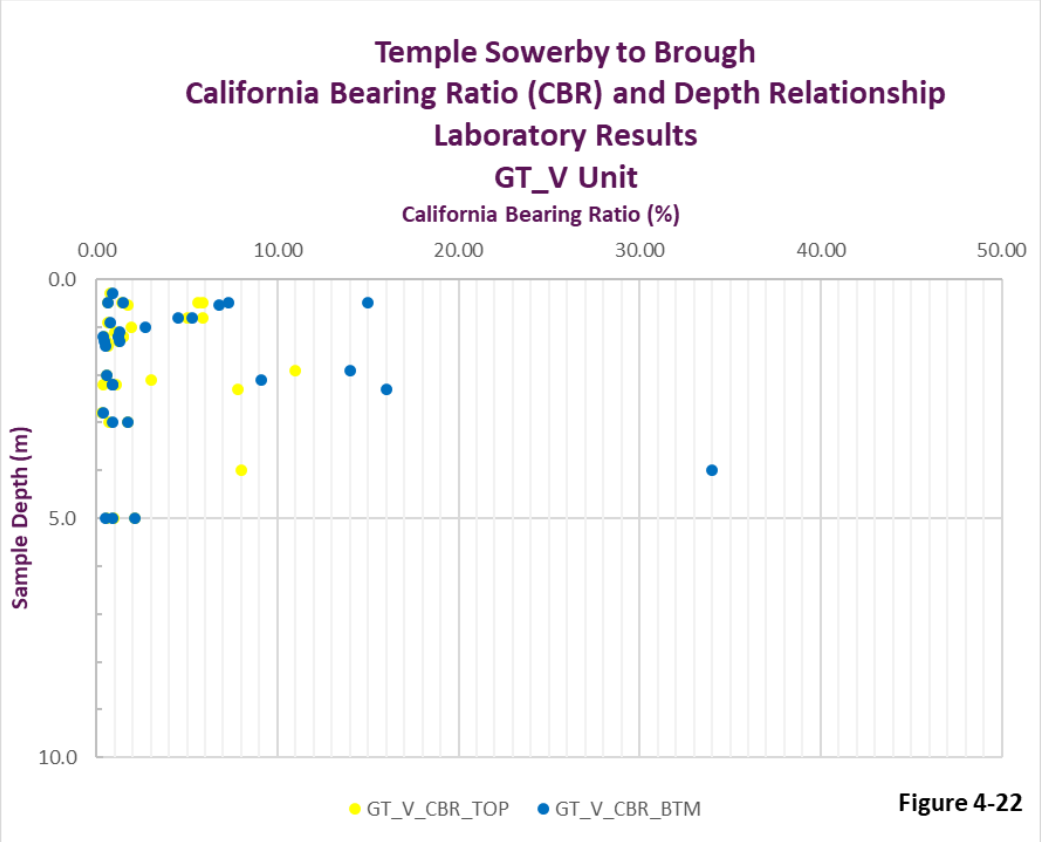

Figure 4-22 GT_V - Laboratory CBR and sample depth relationship

4.4.93 It is notable that results fall predominantly in the 0% to 20% CBR range, but occasional limitations of the test can lead to individual unexpected results. Although it is possible to have very low values of CBR (<0.5%), for natural soils an upper limit of 50% is typical. In this latter case, this would be on strong granular materials and less likely on the fine grained soils. Further consideration has been given to a potential relationship between CBR and PI (plasticity index), as suggested in historical pavement design reference HD25/94 (DMRB, Volume 7,Section 2 Foundations). At this stage there is insufficient information to indicate a

clear relationship for this material, although it can be noted that the in situ CBRs encompass the expected range of 3% to 8% for PI range 10 to 30 given in HD25/94.

4.4.94 Combining the laboratory tests with the in situ plate bearing tests values from Table 4-25 results in Figure 4-23 below.

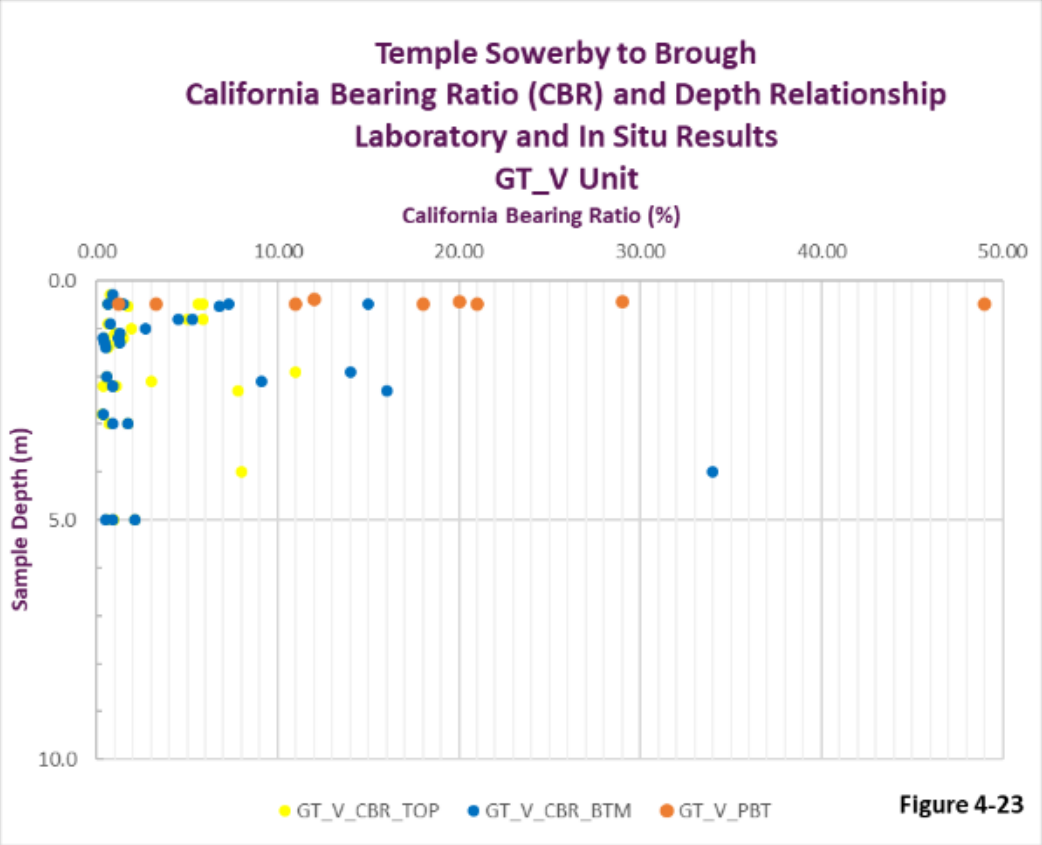

Figure 4-23 GT_V - California Bearing Ratio versus depth (lab and in situ results)

4.4.95 Samples of soil were tested to determine sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (26). The pH and sulfate values for the GT_V unit are given in the table below. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10mg/l.

Table 4-34 : GT_V - pH and Sulfate Concentration - Soil

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
KTB series			
BH KTB010	1.5	7.1	40
BH KTB012	1.0	7.3	18

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
BH KTB016A	0.5	7.6	21
BH KTB018	1.7	7.4	
TP KTB003	0.5	6.9	
TP KTB018	1.5	7.8	
KTA series			
TP KTA008	0.5	7.7	
TP KTA016	0.7	8.1	
TP KTA019	0.5	7.3	
AB series			
BH AB001	2.0	7.7	17
BH AB008	0.3	8.6	18
BH AB010	4.9	7.0	12
BH AB012	0.9	5.8	
BH AB030	4.0	8.7	19
BH AB034	3.0	8.6	
BH AB048	2.0	8.3	19
TP AB002	0.8	8.2	
TP AB009	0.5	7.6	43
TP AB011	0.6	7.8	18
TP AB014	0.9	7.7	25
TP AB018	2.1	7.1	
TP AB022	0.4	7.4	100
TP AB023	1.2	7.3	
TP AB024	0.5	6.5	12
TP AB025	1.3	6.8	
TP AB036	1.4	7.2	18
TP AB040	0.4	7.6	
TP AB046	0.3	6.7	
TP AB050	1.1	5.0	12
TP AB051	0.5	6.9	
TP AB.borrowpit04	0.8	6.9	
WS AB007	0.3	6.8	
RANGE	**0.3 – 4.9**	**5.0 – 8.7**	**12 - 100**

Notes:
1. mbegl – metres below existing ground level.

Test Results – GT_CO (Cohesive Glacial Till)

4.4.96 The GT_CO unit is a fine grained material with its origin in the lodgement tills. This particular unit exhibits a high proportion of fine material, both silt and clay in the mixture and the unit is described as gravelly sandy CLAY with a variable cobble content. The table below lists the exploratory holes where the GT_CO unit was found.

Table 4-35 : Exploratory Holes - Cohesive Glacial Till (GT_CO)

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		
BH AB002, BH AB003, BH AB006, BH AB006A, BH AB008, BH AB009, BH AB010, BH AB012, BH AB015, BH AB018, BH AB019, BH AB019A, BH AB020, BH AB021, BH AB022, BH AB024, BH AB025, BH AB026, BH AB027, BH AB029, BH AB031, BH AB032, BH AB033, BH AB038, BH AB039, BH AB040, BH AB041, BH AB042, BH AB043, BH AB044,	0.00 - 16.20	Soft to firm reddish brown slightly gravelly sandy CLAY with occasional pockets of brown clay (up to 3mm). Sand is fine to coarse. Gravel is subangular to subrounded sandstone and quartzite. Very stiff reddish brown slightly gravelly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is subrounded to rounded fine to coarse of limestone, dolerite and quartzite

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
BH AB045, BH AB046, BH AB047, BH AB048, BH KTA003, BH KTA004, BH KTA005, BH KTA006, BH KTA007, BH KTA008, BH KTA009, BH KTA010, BH KTA011, BH KTA012, BH KTA013, BH KTA014, BH KTA015, BH KTA017, BH KTA018, BH KTA019, BH KTA020, BH KTA021, BH KTA022, BH KTB001, BH KTB003, BH KTB005, BH KTB006, BH KTB007A, BH KTB009, BH KTB010, BH KTB013, BH KTB014, BH KTB015, BH KTB016A, BH KTB017, BH KTB018, BH KTB019, BH KTB020, BH KTB021 mining, BH KTB022 mining, BH KTB023 mining, BH KTB024, BH KTB025, BH KTB026, BH KTB027, BH KTB028, BH KTB036, WS KTA001, WS KTA002		Firm brown yellowish brown and grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies. Cobbles are subangular to subrounded of mixed lithologies. Soft low strength orangish brown slightly gravelly sandy CLAY with medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies including mudstone. Cobbles are subangular to subrounded of mixed lithologies including mudstone. Firm light orangish brown slightly gravelly sandy CLAY. Gravel is angular to subangular fine to coarse of sandstone. Firm dark reddish brown mottled black slightly gravelly sandy CLAY with occasional pockets of yellowish grey fine to coarse sand up to 8mm. Gravel is subangular to subrounded fine to coarse of sandstone, volcaniclastic sandstone and mudstone.
Trial Pits		
TP AB.borrowpit01, TP AB.borrowpit02, TP AB.borrowpit04, TP AB001, TP AB004, TP AB005, TP AB006, TP AB009, TP AB010, TP AB014, TP AB015, TP AB022, TP AB023, TP AB026, TP AB027, TP AB028, TP AB030, TP AB035, TP AB036, TP AB044, TP AB045, TP AB046, TP AB047, TP AB048, TP AB049, TP AB050, TP AB052, TP AB053, TP AB054, TP AB055, TP AB056, TP AB057, TP AB059, TP KTA002, TP KTA003, TP KTA004, TP KTA005, TP KTA006, TP KTA007, TP KTA008, TP KTA009, TP KTA010, TP KTA011, TP KTA012, TP KTA013, TP KTA014, TP KTA015, TP KTA016, TP KTA017, TP KTA018, TP KTA019, TP KTA020, TP KTB001, TP KTB002, TP KTB006, TP KTB007, TP KTB009, TP KTB010, TP KTB011, TP KTB013, TP KTB014, TP KTB016(BRE), TP KTB017, TP KTB018, TP KTB019, TP KTB022, TP KTB023, TP KTB024	0.00 - 3.80	
Notes: 1. mbegl – metres below existing ground level		

4.4.97 The descriptions for cohesive glacial till in Table 4-35 are typical. Generally described as slightly gravelly sandy CLAY, the fine fractions of these soils (clay) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics of the whole soil matrix. This is discussed later in the 'Derived Parameters' section for the GT_CO unit.

4.4.98 In situ and laboratory test results for the GT_CO unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.99 Standard Penetration Tests were undertaken in boreholes for this unit. The raw test values were standardised to a hammer energy of 60% (N60) and the range of values is presented in the table below.

Table 4-36 : GT_CO - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
All boreholes	1.20 - 15.90	3 - 54
BH KTB series	1.20 - 13.50	5 - 51
BH KTA series	1.20 - 15.90	3 - 51
BH AB series	1.20 - 14.00	3 - 54
Notes: 1. mbegl – metres below existing ground level		

4.4.100 The SPT N60 values are shown in relation to test depth in Figure 4-24.

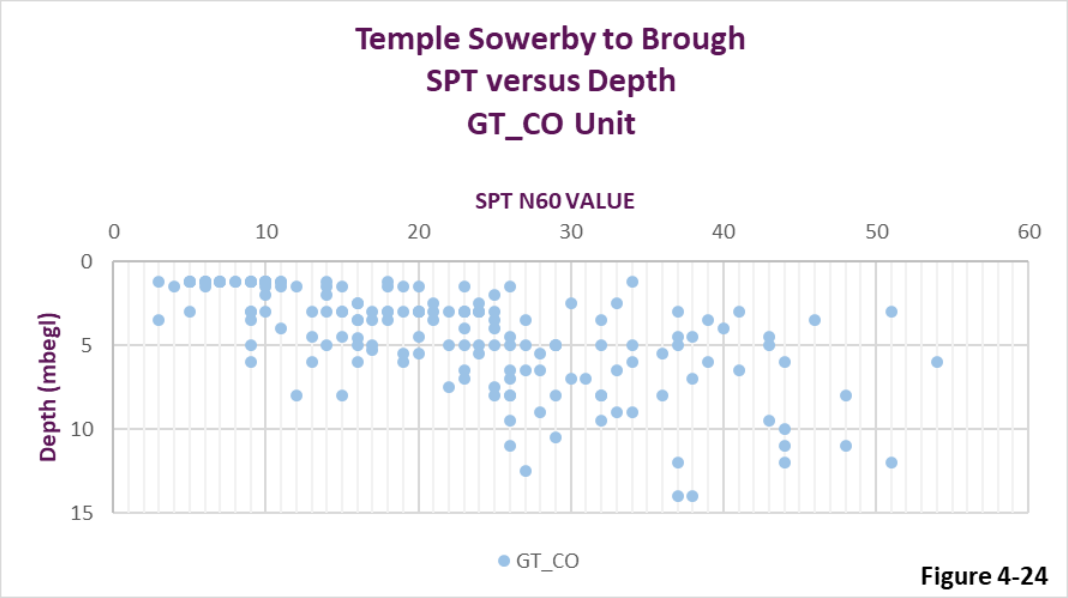

Figure 4-24 GT_CO Unit - SPT N60 versus Depth

4.4.101 Although occasional SPT values from some tests exceeded 50, these tests did not complete the standard test drive length. Consequently, there were no valid calculated SPT N60 values either and these results are not included in the data above. Such values are often indicative of an obstruction in the test drive, such as a cobble, leading to unrepresentative results and have been excluded as noted, to focus on the range of results for completed standard tests. (Where raw SPT value for a standard drive is converted to a SPT N60 value over 50, this value is however reported.)

4.4.102 Plate load tests were undertaken in this unit to determine subgrade surface modulus directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Tests were undertaken in trial pits in several locations, at depths between ground level and 0.5m below existing ground level. For the GT_CO unit, these test results are given in the table below.

Table 4-37 : GT_CO - Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Subgrade Surface Modulus, Es (MPa/m)	Equivalent CBR (%)
TP AB006	0.50	79.5	19
TP AB023	0.50	82.5	20
TP AB055	0.45	33.7	4
TP AB056	0.50	65.9	14
TP KTA007	0.00	60.4	12
TP KTA010	0.50	56.8	11
TP KTA011	0.40	41.8	6
TP KTA014	0.50	56.3	10
TP KTA015	0.50	52.3	9
TP KTA017	0.45	62.9	13
TP KTA020	0.50	41.2	6
TP KTB001	0.50	124.8	41
TP KTB011	0.45	50.3	9
TP KTB013	0.50	16.6	1
TP KTB014	0.45	56.3	10
TP KTB017	0.50	71.9	16
TP KTB023	0.50	81	20
RANGE	**0.00 - 0.50**	**16.6 - 124.8**	**1 - 41**

Notes:
1. mbegl – metres below existing ground level

4.4.103 For the GT_CO unit, there were no complementary subgrade surface stiffness modulus determinations using lightweight deflectometer (section 3.4). These tests will be scheduled in this material in the planned phase 2 investigation.

4.4.104 Soakaway tests described in section 3.4 were undertaken in a number of trial pits. In general, these did not reveal measurable infiltration rates, due to the very low permeability of the materials present. A record of the attempted tests is shown in the table below. During checking of the Factual Report on the 2021 GI it was noted that the calculation was incorrect for the test in TP AB057. Despite this, movement of the water level during test was negligible and the infiltration rate was not determined, as reported and recorded in the table below.

Table 4-38 : GT_CO - Soakaway Test Results

Exploratory Holes	Test Pit Depth (mbegl) Note 1	Infiltration Rate (m/s)
TP KTB016(BRE)	2.00	Not determined
TP KTA012	2.30	Not determined
TP KTA018	2.00	Not determined
TP AB004	2.10	Not determined
TP AB022	2.00	Not determined
TP AB027	2.00	Not determined
TP AB045	2.05	Not determined
TP AB057	2.05	Not determined

Notes:
1. mbegl – metres below existing ground level

4.4.105 For the GT_CO unit, it was also appropriate to measure in situ undrained shear strength where possible. A hand shear vane was used for this purpose, during excavation of trial pits. The

vane allowed assessment of both peak and residual undrained strength. Typically three number tests were taken for the peak determination and similarly, three tests for the residual value. Results are given in the table below, with columns for Peak and Residual to highlight the clear reduction in strength following peak.

Table 4-39 : GT_CO - Undrained shear strength - Hand Shear Vane

Exploratory Holes	Test Depth Range (mbegl) Note 1	Hand Shear Vane Results Peak Values Min/Max/Average (kPa)	Hand Shear Vane Results Residual Values Min/Max/Average (kPa)
All exploratory holes	0.50 - 3.50	11/200/65	7/80/27
KTB series	0.55 - 3.50	11/200/78	8/80/31
KTA series	0.60 - 3.50	30/133/72	11/53/31
AB series	0.50 - 3.50	12/145/46	7/61/20

Notes:
1. mbegl – metres below existing ground level

4.4.106 In addition to the in situ tests described above, laboratory tests were undertaken for materials in the GT_CO unit. These are reported in the following sections.

4.4.107 Particle size distributions (PSDs) were undertaken throughout the Temple Sowerby to Brough scheme area. As noted earlier, this material was encountered at depths from existing ground level up to 16.20mbegl. For the GT_CO unit, the materials have their origin in Glacial Till with a varying range of particle sizes, but principally fine material with a proportion of sand and/or gravel. Cobbles and boulders are present to varying degree depending on location and depth. The PSDs for the GT_CO unit are shown in the figure below.

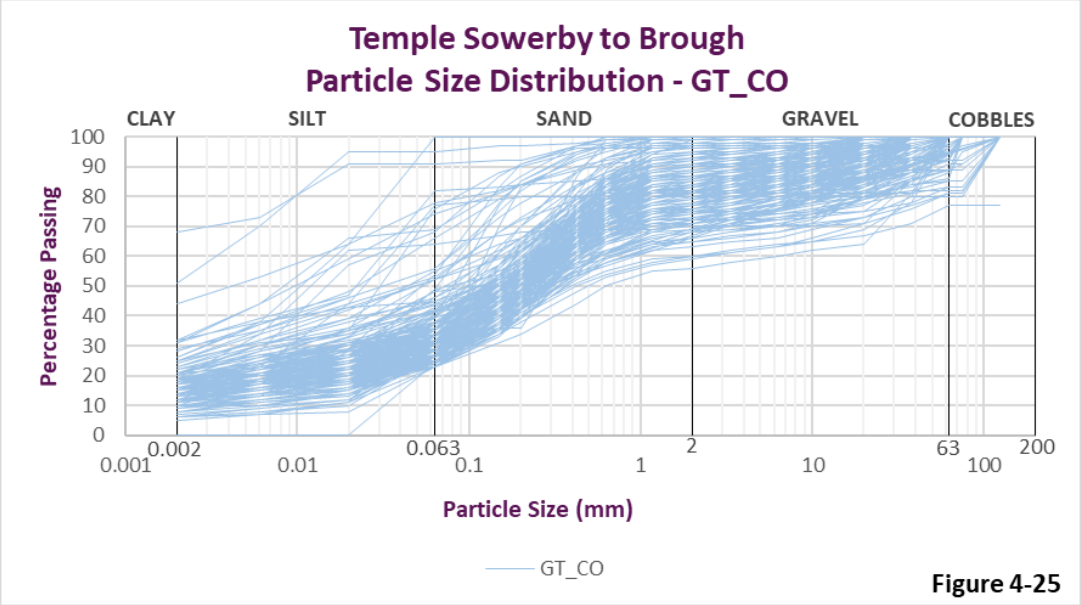

Figure 4-25 GT_CO - Particle Size Distribution

4.4.108 Atterberg Limits are used to determine the plasticity index for silt and clay sized fractions. For the fine grained tills, the clay and silt fractions dominate the overall soil matrix behaviour. A plot of plasticity index against liquid limit is used to characterise the fine fraction. In the figure below, it can be seen that the majority of samples classify as clay of low plasticity.

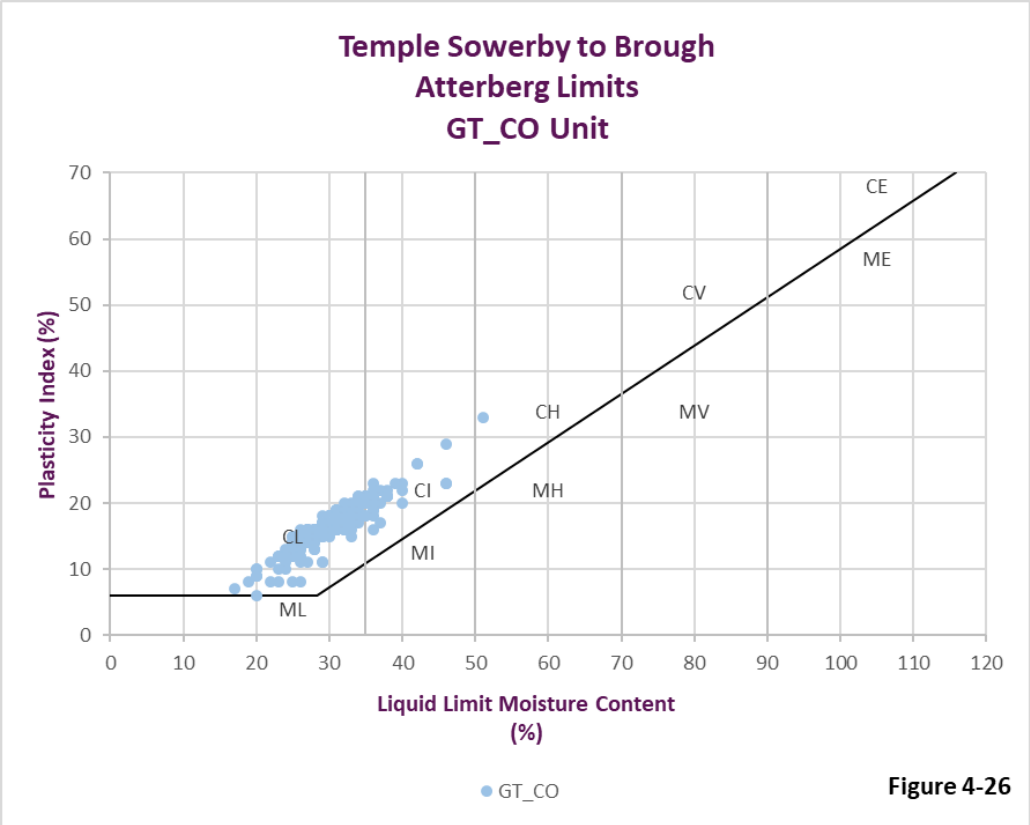

Figure 4-26 GT_CO Atterberg Limits

4.4.109 The relationship between natural moisture content and the plastic limit moisture content is a determinant of re-usability of excavated fine soil in its natural or 'as-dug' condition. The SHW uses this relationship to classify suitability as fill and generally allows a range of moisture contents around the plastic limit.

4.4.110 In the SHW, the **upper** limit moisture content designating Class 2B **dry** cohesive fills is set at (PL-4%). It follows that any material with a natural as-dug moisture content greater than (PL-4%) will therefore exceed this upper limit and will be designated as Class 2A **wet** cohesive fill.

4.4.111 In Figure 4-27 below, the difference between the natural moisture content and (PL-4%) is shown, in addition to the variation with depth. Positive values on the X-axis (NMC-[PL-4]) denote samples which are wet of the upper limit for dry cohesive fill (Class 2B), while the reverse applies for negative values. This effectively means that all the GT_CO material is

Class 2A **wet** cohesive fill. The impact on suitability and re-use is discussed in the later earthworks appraisal sections.

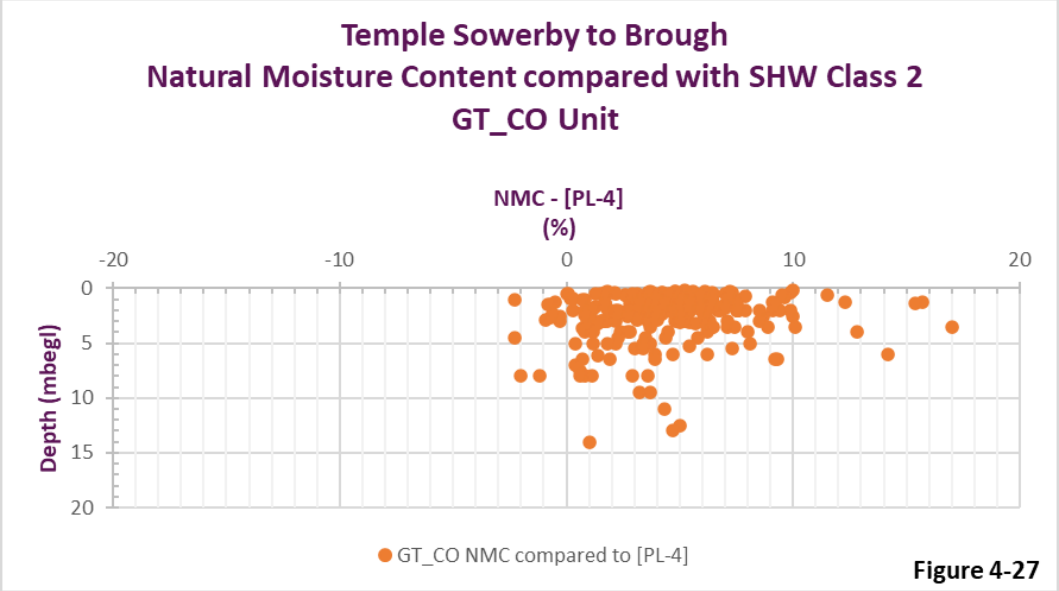

Figure 4-27 GT_CO - Natural Moisture Content and SHW Class 2 limit versus Depth

4.4.112 Strength of fine grained (cohesive) materials has been determined by laboratory triaxial testing. Triaxial tests were undertaken for both undrained and drained conditions to determine shear strength in accordance with the methodology described in section 4.2 earlier.

4.4.113 Undrained shear strength (C_u) was determined for a number of samples of GT_CO. To determine likely behaviour under new construction loading, lateral cell pressures in the triaxial tests were set close to the in situ values, in general. Unconsolidated undrained tests were undertaken at these cell pressures and the results are given in the table below. Where undrained multi-stage tests were undertaken, the figure reported in the table is the arithmetic mean of the individual stage results (rounded to zero decimal places). Where sample type is given as “UT” the test has been undertaken on an undisturbed sample. Sample type of “B” applies to tests undertaken on remoulded material.

Table 4-40 : GT_CO - Unconsolidated undrained shear strength from triaxial tests

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Unconsolidated Undrained Shear Strength, C_u (kPa)
KTB series			
BH KTB001	1.5	B	50
BH KTB005	1.5	UT	43
BH KTB005	3.5	UT	276
BH KTB013	8.0	UT	115
BH KTB013	9.0	UT	179
BH KTB016A	2.0	UT	23
BH KTB022 mining	2.0	UT	126
BH KTB022 mining	4.0	UT	81
BH KTB022 mining	6.0	UT	111
BH KTB024	4.0	UT	150
BH KTB025	9.5	B	120
BH KTB027	2.0	UT	37
BH KTB028	4.0	UT	65
TP KTB010	2.0	B	12
RANGE	**1.5 – 9.5**	**-**	**12 - 276**
KTA series			
BH KTA003	2.0	UT	16
BH KTA003	4.0	UT	351
BH KTA004	2.0	UT	39
BH KTA005	1.2	UT	21
BH KTA007	2.0	UT	42
BH KTA007	4.0	UT	32
BH KTA008	2.0	UT	95
BH KTA008	4.0	UT	102
BH KTA009	2.0	UT	81
BH KTA012	2.0	UT	90
BH KTA013	2.0	UT	62
BH KTA014	2.0	UT	19
BH KTA017	2.5	B	18
TP KTA002	0.4	B	31
TP KTA003	3.0	B	39
TP KTA009	1.9	B	52
TP KTA011	1.5	B	49
TP KTA012	1.1	B	34
TP KTA012	1.5	B	45
TP KTA015	1.2	B	54
TP KTA016	1.4	B	89
WS KTA001	2.0	B	23
RANGE	**0.4 - 4.0**	**-**	**16 - 351**
AB series			
BH AB006A	6.0	UT	18
BH AB010	8.0	B	149
BH AB015	4.0	UT	7
BH AB022	0.2	B	40
BH AB024	7.5	UT	14
BH AB025	1.0	B	21
BH AB027	2.0	UT	7
BH AB031	3.0	B	28
BH AB040	4.0	UT	114
BH AB042	2.0	UT	16
BH AB042	4.0	UT	132
BH AB042	12.5	UT	82
BH AB045	6.0	UT	121
BH AB046	3.5	B	10
BH AB046	7.5	B	132
TP AB004	0.4	B	34
TP AB004	1.0	B	128
TP AB026	1.7	B	44
TP AB028	1.0	B	7
TP AB047	1.0	B	22
TP AB048	2.0	B	10

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Unconsolidated Undrained Shear Strength, C_u (kPa)
TP AB053	1.3	B	32
TP AB054	1.0	B	43
TP AB054	2.0	B	36
TP AB056	0.6	B	19
TP AB056	2.0	B	14
TP AB059	2.0	B	34
TP AB.borrowpit01	1.4	B	44
TP AB.borrowpit02	2.9	B	43
TP AB.borrowpit04	3.0	B	82
RANGE	**0.2 -12.5**	**-**	**7 -149**

Notes:
1. mbegl – metres below existing ground level
2. B = Bulk sample, remoulded for test; UT = "Undisturbed" thin wall tube sample.

4.4.114 Consolidated undrained triaxial tests were undertaken on a number of samples. These tests use a set of specimens (or a multi-stage test on one specimen) to determine a failure envelope, defined by an angle of friction (phi) and any associated apparent cohesion (c). Measurement of pore pressure during testing allows effective stresses to be calculated and consequently, effective strength parameters are determined (phi' and c'). The following table shows the testing undertaken and the strength parameters determined in the tests undertaken in the GT_CO unit.

Table 4-41 : GT_CO - Triaxial Testing (Effective Stress)

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Test Type Note 3	Triaxial Testing CUT with PPM Note 4 Shear Strength Parameters	
				C' (kPa)	PHI' (degrees)
KTB series					
BH KTB009	2.5	UT	CUM	1.0	30.4
BH KTB013	2.0	UT	CUM	5.0	27.5
BH KTB014	2.0	UT	CUM	6.0	28.4
BH KTB017	2.0	UT	CUM	1.0	30.2
BH KTB019	2.0	UT	CUM	2.0	36.0
BH KTB020	4.0	UT	CUM	1.0	21.9
BH KTB026	2.0	UT	CUM	3.0	32.5
BH KTB015	2.0	UT	CU	0 (p'= 69.5kPa, q'=36.5kPa)	31.7 (p'= 69.5kPa, q'=36.5kPa)
BH KTB015	4.0	UT	CU	0 (p'= 284.5kPa, q'=133.5kPa)	28.0 (p'= 284.5kPa, q'=133.5kPa)
BH KTB023 mining	2.0	UT	CU	0 (p'= 86kPa, q'=43kPa)	30.0 (p'= 86kPa, q'=43kPa)
BH KTB023 mining	5.0	UT	CU	0 (p'= 195.5kPa, q'=99.5kPa)	30.6 (p'= 195.5kPa, q'=99.5kPa)
KTA series					
BH KTA009	4.0	UT	CUM	7.0	28.3
BH KTA010	2.0	UT	CUM	5.0	30.0
BH KTA015	2.0	UT	CUM	3.0	29.5
BH KTA017	3.5	UT	CUM	3.0	31.3
BH KTA018	8.0	UT	CUM	4.0	29.7
BH KTA019	6.5	UT	CUM	6.0	28.3
BH KTA021	2.0	UT	CUM	2.0	30.2
BH KTA022	4.5	UT	CUM	5.0	22.8
AB series					
BH AB003	5.0	UT	CUM	3.0	35.7
BH AB010	4.0	UT	CUM	4.0	35.0

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Test Type Note 3	Triaxial Testing CUT with PPM Note 4 Shear Strength Parameters	
				C' (kPa)	PHI' (degrees)
BH AB042	6.5	UT	CUM	3.0	32.4

Notes:
1. mbegl – metres below existing ground level.
2. B = Bulk sample, remoulded for test; UT = "Undisturbed" thin wall tube sample.
3. CU – Single stage test; CUM – Multi-stage on a single specimen.
4. CUT – Consolidated Undrained Triaxial Compression; PPM – Pore Pressure Measurement

4.4.115 In the table above, some single stage tests were undertaken on single samples from the same stratum at different depths. These individual results would then be candidates for a "p-q plot", where the shear stress and normal stress at failure could be plotted for each result. A least mean squares "best-fit" straight line relationship could then be established and from this effective friction and apparent effective cohesion could be determined. At least three tests were scheduled in individual boreholes, but for various reasons (3.8.9), some of the tests could not be undertaken. Given this, it was not deemed valuable to define the relationship described for a limited number of tests across only two boreholes. Consequently, p' and q' were calculated for each of the four individual (CU) results and on the assumption of zero effective cohesion, effective angle of friction was determined. In the phase 2 investigation, a greater number of these tests is planned to derive a more general c'/phi' relationship for the GT_CO unit.

4.4.116 Compressibility and consolidation of fine material were determined by one-dimensional oedometer testing (described in 4.2). Despite a considerable number of scheduled tests, some were the subject of ATN (described in 3.8.9) and deemed unsuitable, usually as a result of coarse gravel content. This would generally be unsuitable for oedometer testing. Further oedometer testing in this material will be attempted in the subsequent phase of investigation, although the gravel content may still limit the suitability of samples for this type of test. Tests which were completed successfully are shown in the table below.

Table 4-42 : GT_CO Compressibility – Oedometer Consolidation Coefficients (m_v and c_v)

Exploratory Holes	Test Depth (mbegl) Note 1	Stress Increment (kPa)	Coefficient of Volume Compressibility m_v (m^2/MN)	Coefficient of Consolidation c_v (m^2/year)
BH AB024	7.5	100	0.65	0.72
BH AB024	7.5	200	0.31	0.77
BH AB024	7.5	400	0.19	0.98
BH AB024	7.5	800	0.11	1.2
BH AB024	7.5	400	(Unloading)	(Unloading)
BH AB042	2.0	50	0.77	2.1
BH AB042	2.0	100	0.3	3
BH AB042	2.0	200	0.18	7
BH AB042	2.0	400	0.11	8.3
BH AB042	2.0	200	(Unloading)	(Unloading)
BH KTA003	2.0	25	1.2	0.92
BH KTA003	2.0	50	0.46	1.3

Exploratory Holes	Test Depth (mbegl) Note 1	Stress Increment (kPa)	Coefficient of Volume Compressibility m_v (m^2/MN)	Coefficient of Consolidation c_v (m^2/year)
BH KTA003	2.0	100	0.32	2.3
BH KTA003	2.0	200	0.21	2.6
BH KTA003	2.0	100	(Unloading)	(Unloading)
BH KTA004	2.0	50	0.63	0.89
BH KTA004	2.0	100	0.23	1.7
BH KTA004	2.0	200	0.16	3.9
BH KTA004	2.0	400	0.098	3.9
BH KTA004	2.0	200	(Unloading)	(Unloading)
BH KTB005	1.5	25	1.1	1.4
BH KTB005	1.5	50	0.34	5.9
BH KTB005	1.5	100	0.24	6.2
BH KTB005	1.5	200	0.15	7.3
BH KTB005	1.5	100	(Unloading)	(Unloading)
BH KTB022 mining	4.0	50	0.29	35
BH KTB022 mining	4.0	100	0.14	20
BH KTB022 mining	4.0	200	0.092	23
BH KTB022 mining	4.0	400	0.06	28
BH KTB022 mining	4.0	200	(Unloading)	(Unloading)
BH KTB022 mining	4.0	100	(Unloading)	(Unloading)
BH KTB022 mining	6.0	125	0.23	30
BH KTB022 mining	6.0	250	0.088	22
BH KTB022 mining	6.0	500	0.063	21
BH KTB022 mining	6.0	1000	0.042	22
BH KTB022 mining	6.0	500	(Unloading)	(Unloading)
BH KTB022 mining	6.0	250	(Unloading)	(Unloading)
BH KTB027	2.0	25	0.76	0.55
BH KTB027	2.0	50	0.33	0.79
BH KTB027	2.0	100	0.23	1.4
BH KTB027	2.0	200	0.14	2.7
BH KTB027	2.0	100	(Unloading)	(Unloading)
BH KTB028	2.0	25	0.89	2.4
BH KTB028	2.0	50	0.34	1.3
BH KTB028	2.0	100	0.26	2.1
BH KTB028	2.0	200	0.17	2.5
BH KTB028	2.0	100	(Unloading)	(Unloading)
BH KTB028	2.0	50	(Unloading)	(Unloading)
BH KTB028	4.0	50	0.41	22
BH KTB028	4.0	100	0.14	8.8
BH KTB028	4.0	200	0.093	9.7
BH KTB028	4.0	400	0.064	17
BH KTB028	4.0	200	(Unloading)	(Unloading)
BH KTB028	4.0	100	(Unloading)	(Unloading)

Notes:
1. mbegl – metres below existing ground level.

4.4.117 In the table above, values of coefficient of volume compressibility (m_v) and coefficient of consolidation (c_v) are given for the stress increments applied during tests on individual specimens. Consideration will be given to values of each of these coefficients, in relation to the sample depth and the stress increments, in the “Derived Parameters” section subsequently. As noted in section 4.2.28 Compression Index (Cc) has not been determined as part of this report as the establishment of a definitive straight line section of the graphs can be problematic and conjectural.

4.4.118 The GT_CO material is a likely candidate for future re-use in earthworks. 48 no compaction tests were undertaken on samples of the material and a relationship between dry density and

moisture content was determined for each sample. Six of the samples were compacted to modified Proctor and the results indicate higher dry densities with corresponding lower optimum moisture contents. The relationships for individual tests can be found in the 2021 GI Factual Report. The table below provides the maximum dry-density achieved for a given sample and the corresponding water content.

Table 4-43 : GT_CO - Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Moisture Content At Maximum Dry Density (%)
KTB series			
BH KTB016A	3.00	2.06	9.4
BH KTB017	1.20	1.85	16.0
BH KTB021 mining	0.45	1.71	18.0
BH KTB025	11.00	2.03	12.0
BH KTB026	6.00	2.11	7.8
TP KTB006	1.30	1.90	13.0
TP KTB013	2.50	1.99	12.0
TP KTB016(BRE)	2.00	1.97	14.0
KTA series			
BH KTA011	1.20	2.01	12.0
BH KTA015	1.20	2.04	11.0
BH KTA015	5.00	2.19	6.7
BH KTA017	4.50	2.07	10.0
BH KTA018	4.50	2.03	11.0
BH KTA018	12.50	2.05	11.0
BH KTA019	0.40	1.99	13.0
BH KTA019	7.50	2.06	9.9
BH KTA021	0.50	1.95	14.0
BH KTA021	3.00	2.22	7.0
BH KTA022	2.50	1.99	11.0
TP KTA006	0.90	1.94	14.0
TP KTA010	0.50	1.95	12.0
TP KTA012	0.35	1.69	16.0
TP KTA012	0.50	1.91	13.0
TP KTA018	0.60	1.99	12.0
TP KTA018	1.80	2.21	6.5
TP KTA019	2.00	2.06	9.9
TP KTA019	3.00	2.25	6.7
AB series			
BH AB021	3.50	2.01	11.0
BH AB031	1.20	2.04	10.0
BH AB032	0.30	1.99	12.0
BH AB042	3.00	2.12	10.0
BH AB042	8.00	2.12	8.3
BH AB043	5.00	2.11	8.6
BH AB044	3.50	2.06	9.9
BH AB045	4.60	2.08	8.9
TP AB.borrowpit01	0.60	1.97	10.0
TP AB.borrowpit01	2.70	2.15	7.1
TP AB.borrowpit02	2.90	2.11	7.0
TP AB.borrowpit04	3.00	2.07	10.0
TP AB009	0.90	2.02	11.0
TP AB009	1.90	2.09	8.9
TP AB010	3.10	2.10	9.4
TP AB014	1.80	1.99	13.0
TP AB044	2.30	2.04	9.0
TP AB045	1.40	2.00	9.5
TP AB052	0.40	1.35	30.0
TP AB056	1.40	1.93	12.0
TP AB057	0.35	1.88	13.0
RANGE	**0.30 – 12.50**	**1.35 – 2.25**	**6.50 – 30.0**

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Moisture Content At Maximum Dry Density (%)

Notes:
1. mbegl – metres below existing ground level

4.4.119 The maximum dry density and corresponding moisture contents in the above table have been plotted in the figure below.

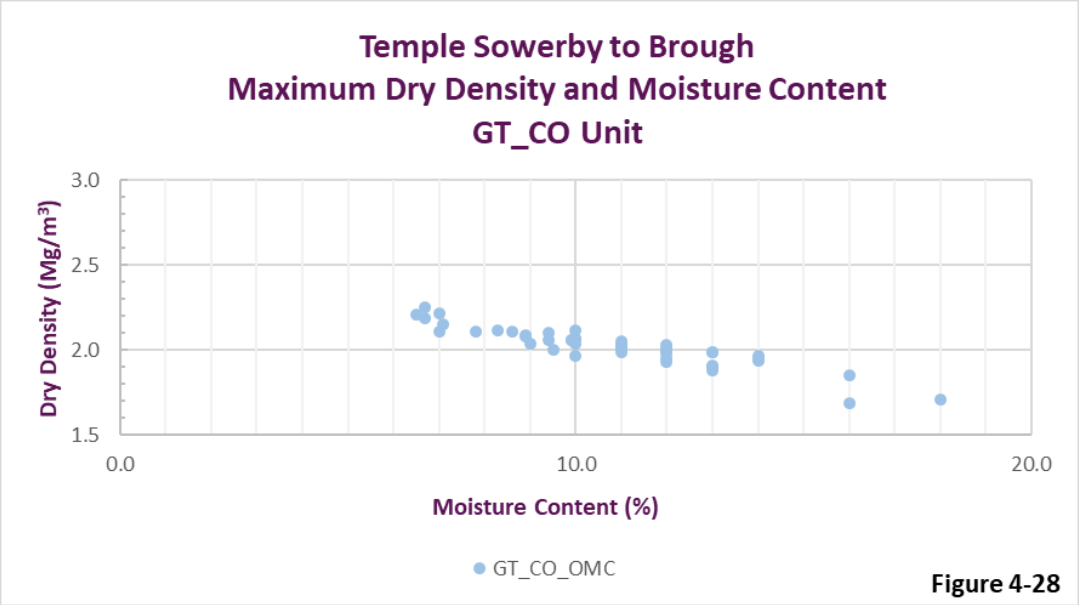

Figure 4-28 GT_CO - Maximum Dry Density and Moisture Content Range

4.4.120 In addition to the compaction testing which determined the relationship between dry density and moisture content, corresponding Moisture Condition Value (MCV) testing was undertaken. This test is aligned with compliance and quality control during earthworks filling operations. It provides a rapid means of assessing material suitability for filling without the requirement to measure the material moisture content. Instead, the expected effort to achieve near complete compaction is measured by a blow count in standard test apparatus, where a function of the blow count at near full compaction is referred to as the MCV. MCV is determined at natural moisture content (single point) and is also determined on a range of moisture contents to provide a calibration line. The calibration line can then be used to provide a range of maximum and minimum values of MCV that equate to a satisfactory level of compaction for a given soil. Although a very wide range of soils can be suitable for the MCV test, granular soils with limited fines can prove unsuitable for both single point and calibration determinations. Given the foregoing, for the GT_CO unit, the following table lists the MCV tests undertaken.

Table 4-44 : GT_CO - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
KTB series				
BH KTB007A	0.3	Single	16.0	6.8
BH KTB007A	1.5	Single	13.0	7.2
BH KTB007A	3.5	Single	13.0	8.6
BH KTB013	2.5	Single	20.0	0.0
BH KTB013	3.0	Single	16.0	3.6
BH KTB013	5.0	Single	13.0	0.0
BH KTB013	6.0	Single	19.0	0.0
BH KTB013	7.0	Single	14.0	8.8
BH KTB014	0.3	Single	19.0	2.7
BH KTB014	1.2	Single	16.0	4.9
BH KTB014	2.5	Single	13.0	5.8
BH KTB014	3.0	Single	13.0	5.8
BH KTB016A	2.5	Single	15.0	0.0
BH KTB017	1.0	Single	18.0	4.3
BH KTB019	1.2	Single	16.0	2.5
BH KTB019	5.0	Calibration	14.7	7.0
BH KTB019	5.0	Calibration	12.6	9.1
BH KTB019	5.0	Calibration	11.7	11.6
BH KTB019	5.0	Calibration	15.0	5.9
BH KTB019	5.0	Calibration	16.5	4.7
BH KTB020	3.0	Calibration	13.3	10.7
BH KTB020	3.0	Calibration	12.2	12.2
BH KTB020	3.0	Calibration	14.0	8.6
BH KTB020	3.0	Calibration	14.6	6.5
BH KTB023 mining	2.6	Single	15.0	5.8
BH KTB023 mining	4.5	Calibration	13.0	5.5
BH KTB023 mining	4.5	Calibration	12.7	7.4
BH KTB023 mining	4.5	Calibration	12.0	8.1
BH KTB023 mining	4.5	Calibration	11.5	10.1
BH KTB023 mining	7.0	Single	13.0	6.8
BH KTB024	2.5	Single	13.0	8.5
BH KTB024	3.0	Single	12.0	9.1
BH KTB025	5.0	Calibration	10.9	10.0
BH KTB025	5.0	Calibration	9.3	12.2
BH KTB025	5.0	Calibration	12.4	6.2
BH KTB025	5.0	Calibration	13.5	4.3
BH KTB025	5.0	Calibration	7.8	13.7
BH KTB025	6.5	Calibration	11.5	9.4
BH KTB025	6.5	Calibration	9.2	13.4
BH KTB025	6.5	Calibration	11.2	8.6
BH KTB025	6.5	Calibration	13.6	6.0
BH KTB026	0.6	Single	15.0	7.8
BH KTB026	1.2	Single	13.0	4.7
BH KTB026	3.0	Single	9.5	6.6
BH KTB026	5.0	Calibration	10.1	8.2
BH KTB026	5.0	Calibration	11.0	7.0
BH KTB026	5.0	Calibration	8.6	9.0
BH KTB026	5.0	Calibration	7.3	14.5
BH KTB026	5.0	Calibration	11.2	5.6
BH KTB036	3.0	Calibration	6.4	5.8
BH KTB036	3.0	Calibration	4.3	7.7
BH KTB036	3.0	Calibration	3.8	6.6
BH KTB036	3.0	Calibration	5.5	5.6
BH KTB036	3.0	Calibration	10.8	0.0
BH KTB036	4.0	Single	14.0	0.0
TP KTB007	2.9	Single	12.0	6.1
TP KTB009	0.9	Single	14.0	1.7
TP KTB013	2.5	Calibration	12.2	6.0
TP KTB013	2.5	Calibration	11.1	9.7
TP KTB013	2.5	Calibration	13.8	5.3
TP KTB013	2.5	Calibration	10.6	11.1

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
TP KTB016(BRE)	1.2	Calibration	13.0	8.6
TP KTB016(BRE)	1.2	Calibration	13.7	7.8
TP KTB016(BRE)	1.2	Calibration	11.7	11.3
TP KTB016(BRE)	1.2	Calibration	10.6	13.9
TP KTB016(BRE)	1.2	Calibration	15.1	6.4
TP KTB017	0.5	Single	16.0	7.1
TP KTB017	1.3	Calibration	13.8	6.8
TP KTB017	1.3	Calibration	12.5	11.4
TP KTB017	1.3	Calibration	13.0	9.0
TP KTB017	1.3	Calibration	11.6	12.6
TP KTB017	1.3	Calibration	17.2	5.0
TP KTB022	1.2	Single	15.0	2.4
TP KTB023	0.6	Single	16.0	5.2
KTA series				
BH KTA004	5.0	Single	13.0	3.8
BH KTA004	7.0	Single	17.0	0.0
BH KTA008	1.2	Single	15.0	3.4
BH KTA008	3.0	Calibration	7.6	13.5
BH KTA008	3.0	Calibration	9.1	10.8
BH KTA008	3.0	Calibration	10.4	8.4
BH KTA008	3.0	Calibration	11.3	6.9
BH KTA009	1.2	Calibration	16.8	3.1
BH KTA009	1.2	Calibration	12.7	7.9
BH KTA009	1.2	Calibration	9.4	14.7
BH KTA009	1.2	Calibration	12.9	7.8
BH KTA009	1.2	Calibration	9.8	12.6
BH KTA009	5.0	Single	9.9	8.5
BH KTA009	6.5	Calibration	9.9	4.2
BH KTA009	6.5	Calibration	11.2	11.9
BH KTA009	6.5	Calibration	8.4	5.2
BH KTA009	6.5	Calibration	12.3	9.6
BH KTA010	1.2	Single	13.0	6.8
BH KTA010	3.0	Single	11.0	8.8
BH KTA010	4.0	Calibration	11.1	8.7
BH KTA010	4.0	Calibration	9.3	12.3
BH KTA010	4.0	Calibration	8.2	14.8
BH KTA010	4.0	Calibration	12.2	6.5
BH KTA010	4.0	Calibration	13.8	3.8
BH KTA010	8.0	Single	10.0	9.6
BH KTA011	5.0	Calibration	9.9	9.4
BH KTA011	5.0	Calibration	11.7	6.8
BH KTA011	5.0	Calibration	8.7	12.8
BH KTA011	5.0	Calibration	12.2	5.5
BH KTA011	6.5	Single	11.0	11.4
BH KTA011	8.0	Single	11.0	8.7
BH KTA011	9.5	Single	11.0	8.6
BH KTA015	0.2	Single	16.0	6.0
BH KTA015	3.0	Single	11.0	10.1
BH KTA015	4.0	Single	11.0	9.6
BH KTA015	6.5	Calibration	10.8	8.9
BH KTA015	6.5	Calibration	10.5	8.0
BH KTA015	6.5	Calibration	9.4	12.0
BH KTA015	6.5	Calibration	8.0	14.3
BH KTA015	6.5	Calibration	12.2	5.5
BH KTA017	2.5	Single	14.0	2.2
BH KTA017	5.5	Calibration	13.5	0.0
BH KTA017	5.5	Calibration	8.2	13.1
BH KTA017	5.5	Calibration	11.3	4.1
BH KTA017	5.5	Calibration	9.8	7.2
BH KTA017	5.5	Calibration	10.1	9.6
BH KTA017	7.0	Single	13.0	3.3
BH KTA018	2.5	Single	15.0	1.0
BH KTA018	3.5	Single	14.0	2.6
BH KTA018	4.5	Calibration	12.8	6.6

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH KTA018	4.5	Calibration	9.4	10.0
BH KTA018	4.5	Calibration	13.7	3.6
BH KTA018	4.5	Calibration	8.1	14.2
BH KTA018	4.5	Calibration	7.2	13.9
BH KTA018	6.5	Calibration	13.5	4.5
BH KTA018	6.5	Calibration	9.5	10.6
BH KTA018	6.5	Calibration	8.5	13.4
BH KTA018	6.5	Calibration	10.6	7.5
BH KTA018	7.5	Single	13.0	3.8
BH KTA018	10.5	Single	14.0	2.2
BH KTA018	11.0	Calibration	9.3	10.7
BH KTA018	11.0	Calibration	11.8	5.3
BH KTA018	11.0	Calibration	10.6	7.5
BH KTA018	11.0	Calibration	7.4	14.0
BH KTA018	13.5	Single	12.0	3.5
BH KTA019	2.5	Single	11.0	7.9
BH KTA019	4.5	Calibration	13.5	4.2
BH KTA019	4.5	Calibration	8.8	11.9
BH KTA019	4.5	Calibration	11.3	5.2
BH KTA019	4.5	Calibration	10.7	9.6
BH KTA019	4.5	Calibration	11.3	6.7
BH KTA019	6.5	Single	13.0	2.9
BH KTA021	1.2	Single	15.0	4.1
BH KTA022	0.4	Single	14.0	8.8
BH KTA022	1.5	Single	17.0	2.8
BH KTA022	3.5	Single	13.0	4.3
BH KTA022	6.5	Single	19.0	0.0
TP KTA010	2.9	Calibration	11.4	7.1
TP KTA010	2.9	Calibration	12.6	5.0
TP KTA010	2.9	Calibration	8.6	13.0
TP KTA010	2.9	Calibration	9.8	9.5
TP KTA011	0.5	Single	15.0	5.1
TP KTA011	1.5	Single	13.0	4.9
TP KTA012	1.1	Calibration	15.4	2.9
TP KTA012	1.1	Calibration	13.0	5.7
TP KTA012	1.1	Calibration	11.6	8.1
TP KTA012	1.1	Calibration	11.7	9.3
TP KTA012	1.1	Calibration	10.4	10.9
TP KTA012	1.5	Single	14.0	5.5
TP KTA014	1.0	Single	14.0	6.7
TP KTA014	2.0	Calibration	13.1	6.2
TP KTA014	2.0	Calibration	13.5	5.4
TP KTA014	2.0	Calibration	11.7	8.2
TP KTA014	2.0	Calibration	10.7	10.3
TP KTA014	3.1	Single	12.0	7.8
TP KTA015	0.5	Single	15.0	5.4
TP KTA015	2.4	Single	12.0	7.2
TP KTA017	1.0	Single	13.0	4.8
TP KTA017	1.7	Calibration	10.6	9.3
TP KTA017	1.7	Calibration	12.2	6.2
TP KTA017	1.7	Calibration	11.4	8.1
TP KTA017	1.7	Calibration	12.0	6.5
TP KTA017	2.9	Single	11.0	8.6
TP KTA018	0.6	Single	14.0	5.5
TP KTA019	0.9	Single	14.0	5.3
TP KTA019	2.0	Single	11.0	6.7
TP KTA019	3.0	Single	9.6	9.3
AB series				
BH AB003	4.0	Single	11.0	4.8
BH AB003	6.0	Calibration	11.4	6.8
BH AB003	6.0	Calibration	9.3	10.6
BH AB003	6.0	Calibration	11.8	5.6
BH AB003	6.0	Calibration	10.3	7.9
BH AB008	1.2	Single	15.0	4.0

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH AB008	6.5	Calibration	13.7	3.1
BH AB008	6.5	Calibration	12.8	3.9
BH AB008	6.5	Calibration	11.5	6.7
BH AB008	6.5	Calibration	10.1	8.1
BH AB010	6.5	Single	13.0	7.4
BH AB020	0.1	Single	23.0	7.4
BH AB042	1.2	Single	16.0	3.3
BH AB043	4.0	Single	12.0	2.8
BH AB045	3.5	Calibration	11.8	4.1
BH AB045	3.5	Calibration	10.9	6.8
BH AB045	3.5	Calibration	9.5	8.8
BH AB045	3.5	Calibration	8.5	10.3
TP AB004	0.4	Calibration	12.3	1.7
TP AB004	0.4	Calibration	10.9	5.8
TP AB004	0.4	Calibration	10.2	8.0
TP AB004	0.4	Calibration	9.3	9.6
TP AB004	0.4	Calibration	7.8	12.3
TP AB005	0.4	Calibration	19.1	0.0
TP AB005	0.4	Calibration	17.2	0.0
TP AB005	0.4	Calibration	16.7	0.0
TP AB005	0.4	Calibration	15.9	0.0
TP AB009	0.9	Single	14.0	0.4
TP AB009	1.9	Single	18.0	4.5
TP AB010	2.1	Calibration	10.9	4.6
TP AB010	2.1	Calibration	9.1	7.0
TP AB010	2.1	Calibration	8.0	8.1
TP AB010	2.1	Calibration	6.4	11.0
TP AB010	3.1	Single	9.6	8.0
TP AB015	1.4	Calibration	12.9	1.6
TP AB015	1.4	Calibration	12.1	2.8
TP AB015	1.4	Calibration	11.3	3.9
TP AB015	1.4	Calibration	6.2	9.8
TP AB015	1.4	Calibration	5.8	11.2
TP AB015	1.8	Single	12.0	0.0
TP AB022	1.4	Single	13.0	4.6
TP AB027	1.8	Calibration	11.4	3.4
TP AB027	1.8	Calibration	5.0	8.2
TP AB027	1.8	Calibration	8.1	3.3
TP AB027	1.8	Calibration	13.3	0.0
TP AB035	0.9	Single	15.0	2.0
TP AB046	1.0	Calibration	11.4	7.4
TP AB046	1.0	Calibration	10.9	8.7
TP AB046	1.0	Calibration	9.1	11.3
TP AB046	1.0	Calibration	11.7	6.8
TP AB048	0.9	Calibration	12.2	3.6
TP AB048	0.9	Calibration	11.6	5.9
TP AB048	0.9	Calibration	11.1	7.8
TP AB048	0.9	Calibration	10.3	7.9
TP AB049	1.0	Single	13.0	3.2
TP AB053	2.1	Single	14.0	5.6
TP AB053	3.0	Single	15.0	2.6
TP AB054	2.9	Single	17.0	1.7
TP AB057	1.0	Calibration	14.0	4.3
TP AB057	1.0	Calibration	13.5	6.2
TP AB057	1.0	Calibration	12.6	7.7
TP AB057	1.0	Calibration	11.2	9.8
TP AB.borrowpit01	0.6	Single	13.0	4.9
TP AB.borrowpit01	1.4	Calibration	13.2	5.2
TP AB.borrowpit01	1.4	Calibration	11.5	7.8
TP AB.borrowpit01	1.4	Calibration	10.2	11.3
TP AB.borrowpit01	1.4	Calibration	9.4	13.7
RANGE	**0.10 – 13.50**		**3.8 – 23.0**	**0.0 – 14.8**
Notes:				

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2

1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. Where Test Type is Single, the water content for the test is natural water content.

4.4.121 The MCV value and moisture content data pairs for all results are given in the figure below, showing the range of potential MCV values and corresponding moisture contents. The individual results from each calibration test are also shown, rather than each calibration line. Individual calibration lines can be viewed in the 2021 GI Factual Report. The calibration test results used a range of five moisture contents where possible with the natural moisture content covered within the range if possible, Some 5% of the results returned mcv values of less than 1 on a varying range of moisture contents (10.8% to 20%).

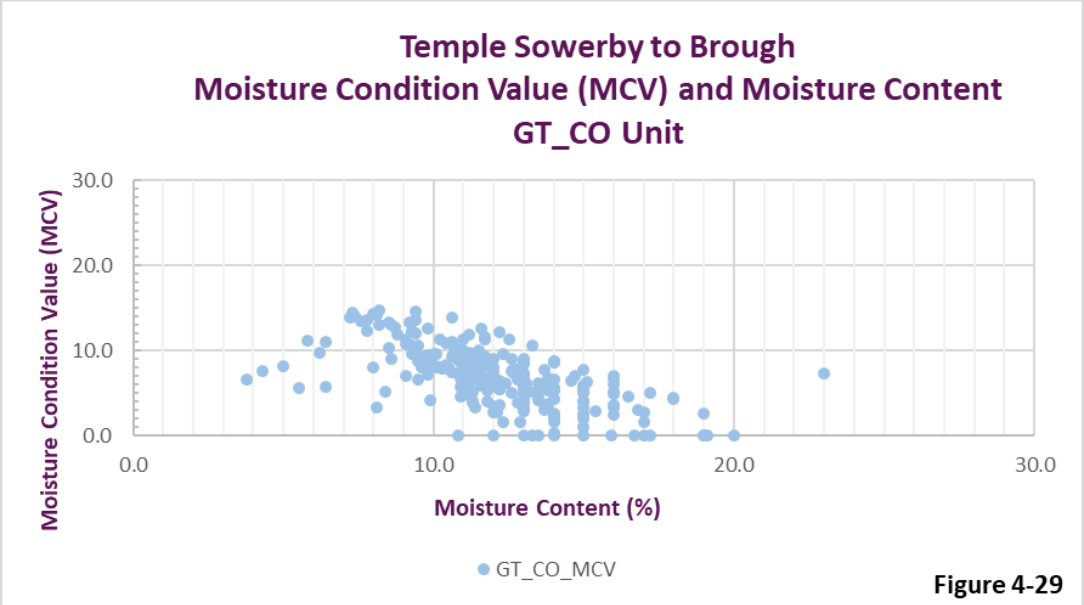

Figure 4-29 GT_CO - Moisture Condition Value (MCV) and Moisture Content Relationship

4.4.122 In situ plate bearing tests were described above, where equivalent CBR was determined indirectly by relationship with stiffness. In addition to these, laboratory CBR tests were undertaken. For the GT_CO unit, the results of the tests are given in the following table.

Table 4-45 : GT_CO - Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content (%)	CBR Top (%)	CBR Bottom (%)
BH AB021	1.50	15.0	1.6	1.3
BH AB025	1.00	20.0	1.5	1.9
BH AB029	0.25	12.0	4.6	4.5
BH AB031	1.20	10.0	2.7	2.2
BH AB031	3.00	11.0	1.7	1.8

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content (%)	CBR Top (%)	CBR Bottom (%)
BH AB038	0.70	14.0	0.8	1.1
BH AB046	3.50	15.0	0.5	0.6
BH AB046	7.50	7.9	13.0	11.0
BH KTA009	0.30	16.0	1.2	1.3
BH KTA009	3.00	12.0	2.7	2.3
BH KTA010	5.00	12.0	3.6	3.3
BH KTA011	6.50	11.0	8.2	7.5
BH KTA015	1.20	11.0	8.0	7.0
BH KTA017	1.50	14.0	0.9	0.7
BH KTA017	6.50	18.0	0.1	0.0
BH KTA018	10.50	15.0	1.1	0.9
BH KTA018	2.50	14.0	0.7	0.7
BH KTA018	3.50	15.0	1.2	0.8
BH KTA019	5.50	10.0	8.6	7.4
BH KTB007A	2.50	12.0	7.1	6.4
BH KTB007A	4.50	11.0	11.0	7.4
BH KTB017	3.00	9.4	25.0	39.0
BH KTB025	9.50	9.0	11.0	11.0
BH KTB026	6.00	11.0	2.5	2.8
BH KTB026	8.00	10.0	10.0	8.9
TP AB.borrowpit01	0.60	13.0	2.0	2.1
TP AB.borrowpit01	1.40	13.0	2.3	2.6
TP AB.borrowpit02	2.90	12.0	2.1	2.7
TP AB.borrowpit04	3.00	9.6	9.4	8.8
TP AB009	0.90	15.0	0.5	0.4
TP AB009	1.90	11.0	1.5	2.5
TP AB010	3.10	9.4	14.0	16.0
TP AB015	1.80	11.0	5.4	15.0
TP AB022	1.40	13.0	1.0	1.2
TP AB023	0.50	13.0	1.1	1.1
TP AB046	1.00	13.0	1.4	1.3
TP AB053	1.30	14.0	4.5	3.7
TP AB054	0.50	17.0	1.6	1.7
TP AB054	1.00	17.0	1.6	1.9
TP AB056	1.40	16.0	1.1	1.0
TP AB057	0.35	8.6	4.7	3.9
TP AB059	2.00	15.0	0.9	1.0
TP KTA010	0.50	13.0	3.9	4.3
TP KTA010	1.40	12.0	1.5	1.6
TP KTA010	1.90	12.0	1.5	1.6
TP KTA012	0.35	21.0	1.4	1.8
TP KTA012	0.50	15.0	3.6	4.7
TP KTA012	1.10	15.0	1.2	1.1
TP KTA012	1.50	13.0	4.0	3.9
TP KTB001	1.00	13.0	7.2	6.7
TP KTB001	2.00	22.0	1.1	1.1
TP KTB002	0.90	14.0	8.5	7.6
TP KTB007	2.90	11.0	3.2	3.2
TP KTB010	1.50	12.0	3.1	4.0
TP KTB024	0.50	14.0	4.1	4.6
TP KTB024	1.40	12.0	2.6	3.3
RANGE	**0.25 – 10.50**	**2.9 – 22.0**	**0.1 – 25.0**	**7.9 – 22.0**

Notes:
1. mbegl – metres below existing ground level.

4.4.123 Results of unsoaked laboratory CBR tests are shown in the figure below. As the test is performed on both the top and the bottom of the sample, both results are quoted in the above table and are plotted in the figure below.

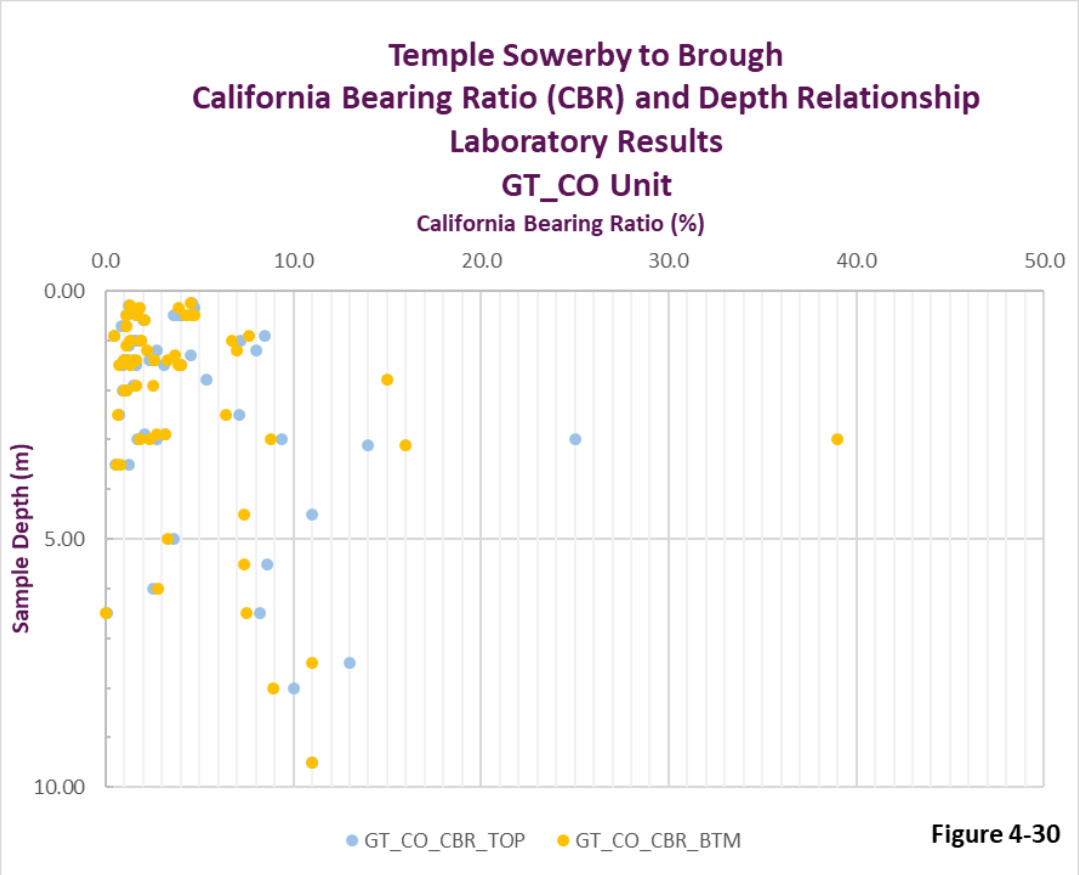

Figure 4-30 GT_CO - Laboratory CBR and sample depth relationship

4.4.124 It is notable that results fall predominantly in the 0% to 20% CBR range, but occasional limitations of the test can lead to individual unexpected results. Although it is possible to have very low values of CBR (<0.5%), for natural soils an upper limit of 50% is typical. In this latter case, this would be on strong granular materials and less likely on the fine grained soils. Further consideration has been given to a potential relationship between CBR and PI (plasticity index), as suggested in historical pavement design reference HD25/94 (DMRB, Volume 7,Section 2 Foundations). At this stage there is insufficient information to indicate a clear relationship for this material, although it can be noted that the in situ CBRs encompass the expected range of 3% to 8% for PI range 10 to 30 given in HD25/94.

4.4.125 Combining the laboratory tests with the in situ plate bearing tests values from Table 4-37 results in Figure 4-31 below.

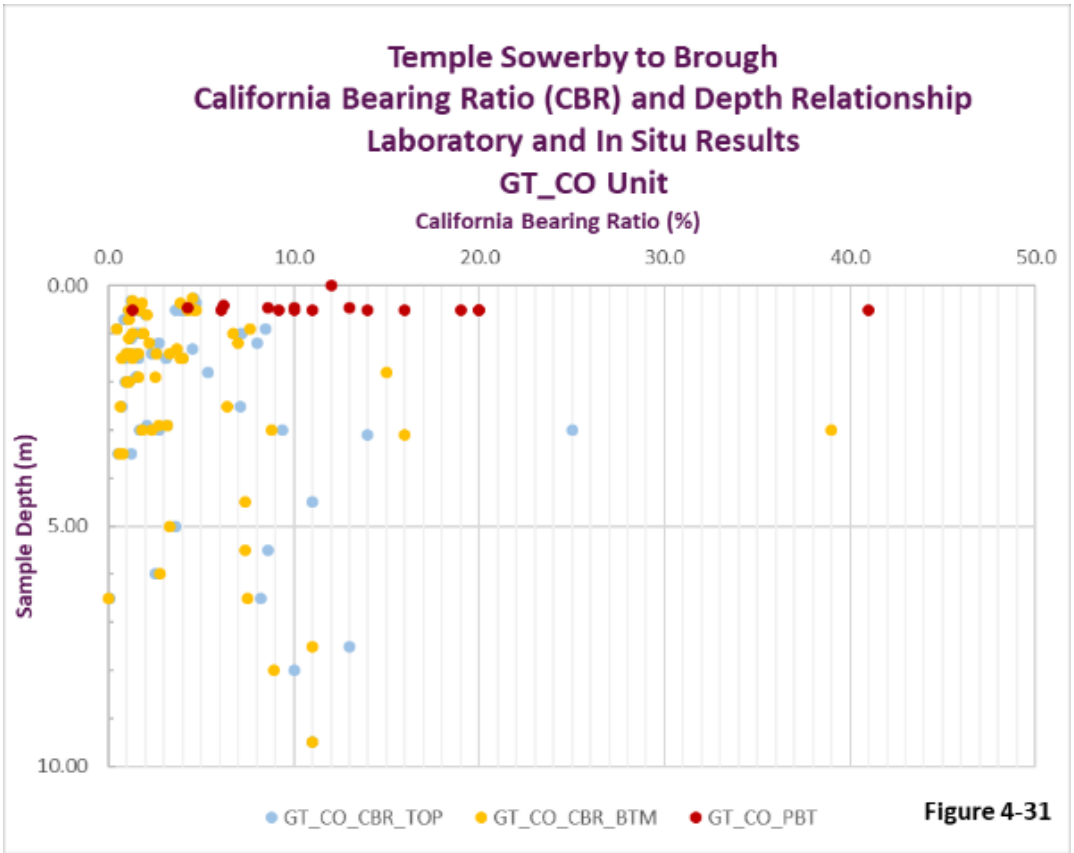

Figure 4-31 GT_CO - California Bearing Ratio versus depth (lab and in situ results)

4.4.126 Samples of soil were tested to determine sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (26). The pH and sulfate values for the GT_CO unit are given in the table below. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10mg/l.

Table 4-46 : GT_CO - pH and Sulfate Concentration - Soil

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
KTB series			
BH KTB003	1.2	7.1	12
BH KTB006	0.3	7.1	34
BH KTB014	1.2	7.3	
BH KTB017	1	7.2	
BH KTB019	1.2	7.1	
BH KTB019	8	7.5	490
BH KTB020	5	8.1	120
BH KTB021 mining	0.45	7.5	19
BH KTB021 mining	5.3	8.1	85
BH KTB027	0.5	7	12
BH KTB025	5	8.1	

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
BH KTB036	3	7.1	140
BH KTB026	1.2	8.2	
TP KTB009	0.4	7.1	17
TP KTB010	1.5	8.3	120
TP KTB013	1.5	6.4	11
TP KTB016(BRE)	0.5	7.5	12
TP KTB017	0.5	7.1	15
TP KTB019	1.8	7.4	11
TP KTB023	0.6	7.2	56
TP KTB024	1.4	8.2	
KTA series			
BH KTA003	0.5	7.3	16
BH KTA004	0.4	6.1	11
BH KTA006	1.0	6.3	16
BH KTA009	0.3	7.3	
BH KTA011	1.2	7.4	14
BH KTA017	1.0	8.2	
BH KTA019	5.5	8.5	
BH KTA021	1.2	7.8	
TP KTA002	1.0	7.0	
TP KTA005	1.0	8.3	
TP KTA006	0.9	6.7	13
TP KTA009	2.5	7.0	
TP KTA010	1.4	6.8	
TP KTA010	2.9	8.2	
TP KTA011	1.5	8.3	15
TP KTA012	0.4	7.2	
TP KTA013	0.5	7.2	11
TP KTA014	1.4	7.1	24
TP KTA015	1.5	7.3	10
TP KTA018	0.6	7.1	
WS KTA002	0.3	6.2	18
AB series			
BH AB008	1.2	7.3	29
BH AB009	11.5	8.0	12
BH AB018	0.6	6.3	15
BH AB021	3.5	6.5	
BH AB026	0.6	7.5	61
BH AB027	1.2	8.3	46
BH AB031	3.0	8.6	
BH AB042	1.2	7.6	11
BH AB042	8.0	8.2	12
TP AB006	1.0	7.5	64
TP AB044	2.3	7.9	
TP AB049	1.0	7.2	
RANGE	**0.3 – 11.5**	**6.1 – 8.6**	**10 - 490**

Notes:
1. mbegl – metres below existing ground level.

Test Results - SAND

4.4.127 The SAND unit is a coarse grained material of fluvial origin or the result of primary weathering of the Penrith Sandstone (PS). This particular unit is predominantly sand sized particles, with some gravel and cobble sized fractions and low fines content. The table below lists the exploratory holes where the SAND unit was found.

Table 4-47 : Exploratory Holes - Sand (SAND)

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		
BH AB001, BH AB005, BH AB010, BH AB014, BH AB018, BH AB023, BH AB024, BH AB027, BH AB028, BH AB035, BH AB036, BH AB037, BH AB039, BH AB040, BH AB041, BH AB043, BH KTA004, BH KTA006, BH KTB002, BH KTB003, BH KTB004, BH KTB005, BH KTB006, BH KTB009, BH KTB010, BH KTB011, BH KTB012, BH KTB014, BH KTB015, BH KTB016A, BH KTB017, BH KTB018, BH KTB020, BH KTB022 mining, BH KTB023 mining, BH KTB027, BH KTB028 TP AB.borrowpit03, TP AB013, TP AB033, TP AB035, TP KTA006, TP KTB002, TP KTB005	0.10 – 14.00	Very dense reddish brown fine to coarse SAND of quartz. Medium dense to dense reddish brown slightly gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded predominantly fine to medium of mixed lithologies including mudstone. Loose orange slightly gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of sandstone and occasional mudstone. Extremely weak red SANDSTONE recovered as slightly gravelly silty fine to coarse sand of quartz. Gravel is rare angular to subrounded fine to medium of sandstone. (Possible Weathered Bedrock) Very dense reddish brown slightly gravelly clayey fine to medium SAND. Gravel is angular to subangular fine to coarse of extremely weak sandstone lithorelicts. Orangish brown clayey predominantly fine to medium SAND. Gravel is angular to rounded fine of sandstone.
Trial Pits		
TP AB.borrowpit03, TP AB013, TP AB033, TP AB035, TP KTA006, TP KTB002, TP KTB005	0.30 – 3.50	
Notes: 1. mbegl – metres below existing ground level		

4.4.128 The descriptions for sand in Table 4-47 are typical. Generally described as slightly gravelly clayey fine to coarse sand, the granular fractions and particle shape of this soil will have the greatest influence on the material behaviour and will control the strength characteristics of the whole soil matrix. In addition, the material is found to range from loose to very dense states of in situ density, with strength generally increasing in proportion. Strength is discussed later in the 'Derived Parameters' section for the SAND unit.

4.4.129 In situ and laboratory test results for the SAND unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.130 Standard Penetration Tests were undertaken in boreholes for this unit. The raw test values were standardised to a hammer energy of 60% (N60) and the range of values is presented in the table below.

Table 4-48 : SAND - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
All boreholes	1.20 – 13.50	1 - 50
BH KTB series	1.20 – 7.50	8 - 50
BH KTA series	6.80 – 8.80	-
BH AB series	1.20 – 13.50	1 -37
Notes: 1. mbegl – metres below existing ground level		

4.4.131 The SPT N60 values are shown in relation to test depth in Figure 4-32.

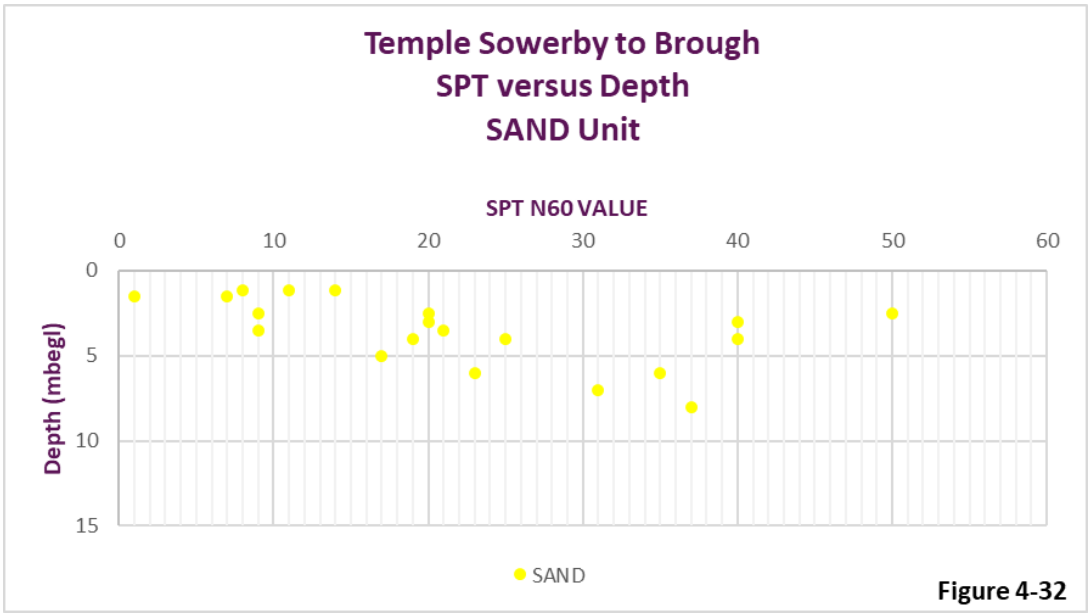

Figure 4-32 SAND Unit - SPT N60 versus Depth

4.4.132 Although occasional SPT values from some tests exceeded 50, these tests did not complete the standard test drive length. Consequently, there were no valid calculated SPT N60 values either and these results are not included in the data above. Such values are often indicative of an obstruction in the test drive, such as a cobble, leading to unrepresentative results and have been excluded as noted, to focus on the range of results for completed standard tests.

4.4.133 A single plate load test was undertaken in this unit to determine subgrade surface modulus directly and by correlation, to report an equivalent California Bearing Ratio (CBR). The test was undertaken in trial pit TP AB013, at 0.5m below existing ground level. This result is given in the table below.

Table 4-49 : SAND - Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Subgrade Surface Modulus, Es (MPa/m)	Equivalent CBR (%)
TP AB013	0.50	52.8	9
RANGE	-	-	-

Notes:
1. mbegl – metres below existing ground level

4.4.134 In addition to the plate bearing test reported above, subgrade surface stiffness modulus was determined using lightweight deflectometer (section 3.4). The result is presented in the following table.

Table 4-50 : SAND - Lightweight Deflectometer Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Subgrade Surface Stiffness Modulus Emin / Emax/Eaverage (MPa) Note 2
TP AB013	0.50	84/134/112
RANGE	-	-

Notes:
1. mbegl – metres below existing ground level
2. Emin and Emax and Eaverage determined from between 6 and 10 individual readings per test.

4.4.135 Soakaway tests described in section 3.4 were undertaken in a number of trial pits. In general, these did not reveal measurable infiltration rates, due to the very low permeability of the materials present. Only one test was undertaken in the SAND unit, as shown in the table below. There was no measurable movement in water level to allow calculation of an infiltration rate.

Table 4-51 : SAND - Soakaway Test Results

Exploratory Holes	Test Pit Depth (mbegl) Note 1	Infiltration Rate (m/s)
TP KTA006	2.00	Not determined

Notes:
1. mbegl – metres below existing ground level

4.4.136 In addition to the in situ tests described above, laboratory tests were undertaken for materials in the SAND unit. These are reported in the following sections.

4.4.137 Particle size distributions (PSDs) were undertaken throughout the Temple Sowerby to Brough scheme area. As noted earlier, this material was encountered at depths from existing ground level up to 14.00mbegl. For the SAND unit, the materials have a varying range of particle sizes, but principally coarse material of sand and some gravel, with a minor proportion of fines. The PSDs for the SAND unit are shown in the figure below.

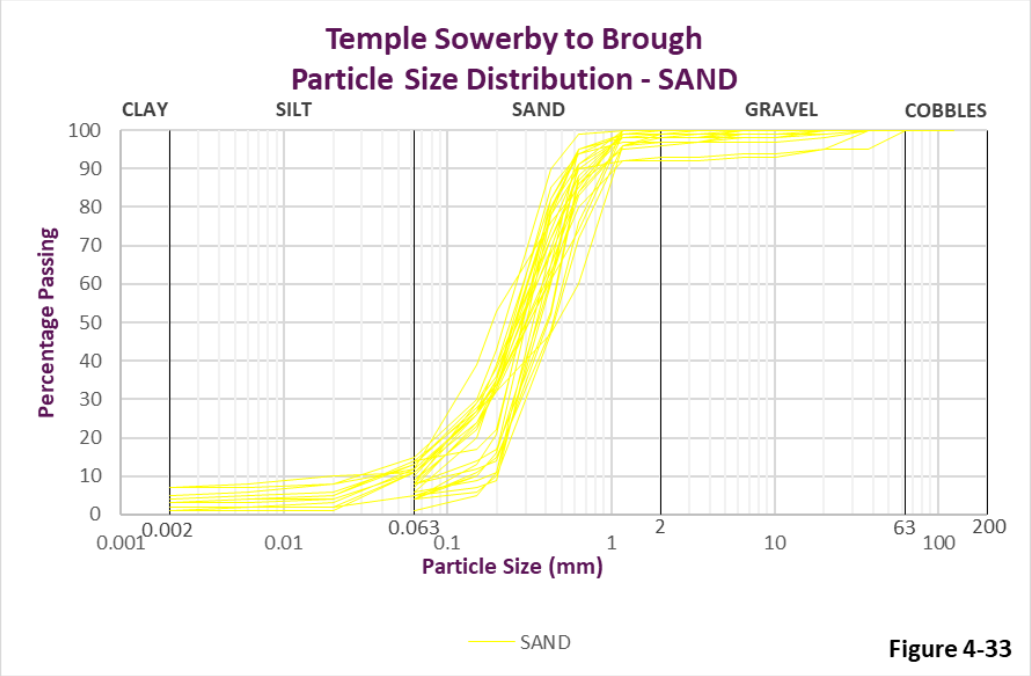

Figure 4-33 SAND - Particle Size Distribution

4.4.138 Atterberg Limits are used to determine the plasticity index for silt and clay sized fractions. For the SAND unit, the clay and silt fraction do not dominate the overall soil matrix behaviour and are not discussed here. On occasion, where Atterberg Limits were determined for the SAND unit, plasticity index may have been determined, but this is not of relevance and is not reported here.

4.4.139 Strength of granular materials has been directly determined by shearbox testing. These tests determine the peak and residual internal angle of friction (phi) and any associated apparent cohesion (c). By definition, shearbox testing assumes full drainage (dissipation of pore pressures) during shearing and consequently, effective strength parameters are determined (phi' and c'). For the SAND unit, the following table shows the testing undertaken and the strength parameters determined in each test.

Table 4-52 : SAND - Laboratory Shearbox Testing Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Shear Strength Parameters (c' kPa / phi' degrees)
KTB series		
BH KTB003	3.0	0/36.5
BH KTB012	2.5	11/36.5
BH KTB016A	4.0	0/35.5
TP KTB005	1.3	3/31.5
KTA series		
None		
AB series		
BH AB005	1.2	8/32.5

Exploratory Holes	Sample Depth (mbegl) Note 1	Shear Strength Parameters (c' kPa / phi' degrees)
BH AB010	5.0	22/32.5
BH AB014	3.0	2/29.5
BH AB024	0.2	4/46.5
BH AB036	0.3	4/31
TP AB033	1.2	7/31.5
TP AB033	2.6	0/34.5
TP AB.borrowpit03	1.2	16/31.5
RANGE	**0.20 – 5.00**	**29.5 – 46.5 Note 2**

Notes:
1. mbegl – metres below existing ground level
2. c' and phi' are complementary elements of the shear strength. However, c' can be an artefact of testing and is often ignored, so that the shear strength range is for the angle of shearing resistance phi' only. This range is reported here.

4.4.140 For the SAND unit, the variation of effective angle of internal friction with depth is shown in the figure below. With regard to the apparent effective cohesion, this can often be associated with testing limitations and is generally ignored. However, on some occasions it is feasible that the material in situ is very dense and cemented, possessing a built in shear resistance or apparent cohesion, but this is unlikely in a re-moulded specimen. Consequently, the c' values in the above table cannot be relied upon and are discounted.

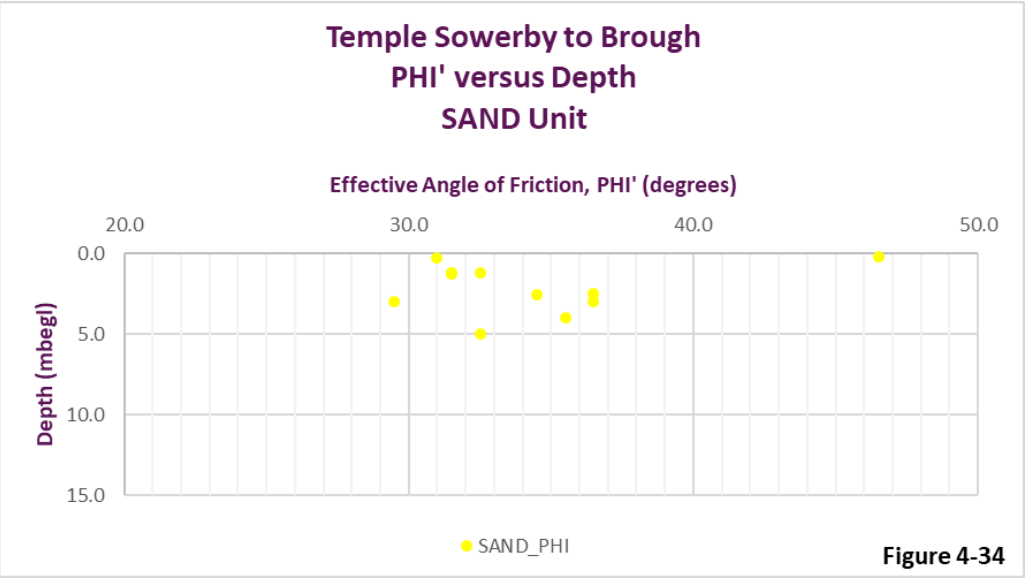

Figure 4-34 SAND - Variation of angle of internal friction with depth

4.4.141 There are standard correlations using SPT N value to determine internal angle of friction in granular materials. These are considered in the later 'Derived Parameters' section for the SAND unit.

4.4.142 The SAND material is a likely candidate for future re-use in earthworks, being free-draining and readily compacted. Six compaction tests were undertaken on samples of the material all at Standard compaction (2.5kg) and a relationship between dry density and moisture content was determined for each sample. The relationships for individual tests can be found in the 2021 GI Factual Report. The table below provides the maximum dry-density achieved for a given sample and the corresponding water content.

Table 4-53 : SAND - Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Moisture Content At Maximum Dry Density (%)
BH AB010	0.90	1.75	13.0
BH AB027	4.00	1.78	13.0
BH KTB003	2.00	1.93	10.0
BH KTB009	4.50	2.00	8.8
TP AB.borrowpit03	1.20	1.83	11.0
TP KTA006	2.30	1.87	13.0
RANGE	**0.90 – 4.50**	**1.75 – 2.00**	**8.8 – 13.0**

Notes:
1. mbegl – metres below existing ground level

4.4.143 The maximum dry density and corresponding moisture contents in the above table have been plotted in the figure below.

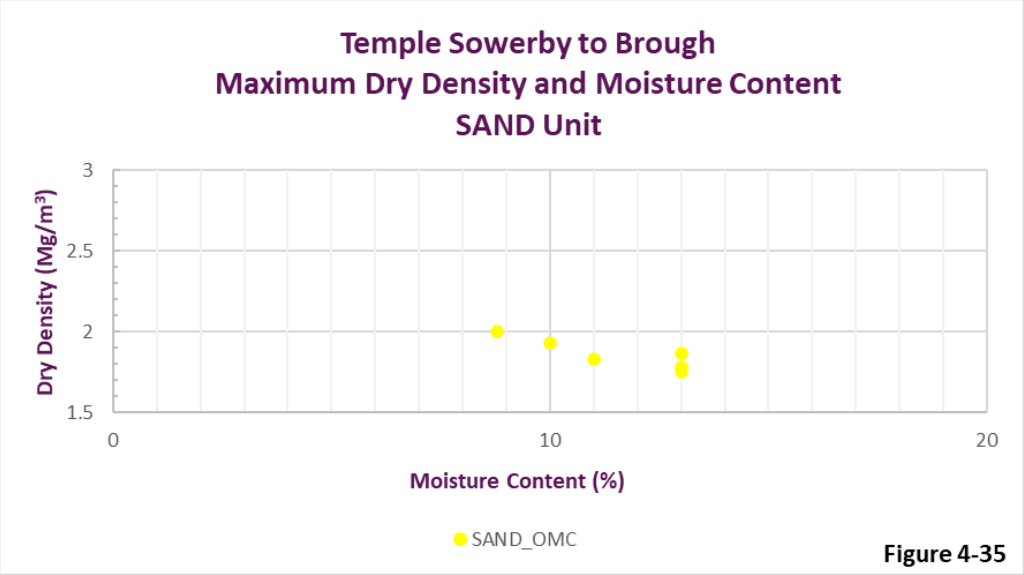

Figure 4-35 SAND - Maximum Dry Density and Moisture Content Range

4.4.144 In addition to the compaction testing which determined the relationship between dry density and moisture content, corresponding Moisture Condition Value (MCV) testing was undertaken. This test is aligned with compliance and quality control during earthworks filling operations. It provides a rapid means of assessing material suitability for filling without the

requirement to measure the material moisture content. Instead, the expected effort to achieve near complete compaction is measured by a blow count in standard test apparatus, where a function of the blow count at near full compaction is referred to as the MCV. MCV is determined at natural moisture content (single point) and is also determined on a range of moisture contents to provide a calibration line. The calibration line can then be used to provide a range of maximum and minimum values of MCV that equate to a satisfactory level of compaction for a given soil. Although a very wide range of soils can be suitable for the MCV test, granular soils with limited fines can prove unsuitable for both single point and calibration determinations. Given the foregoing, for the SAND unit, the following table lists the MCV tests undertaken.

Table 4-54 : SAND - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH AB027	5	Single	14	0
BH AB027	6	Single	14	0
BH KTB012	3.5	Calibration	18.9	0
BH KTB012	3.5	Calibration	10	4.0
BH KTB012	3.5	Calibration	9.2	4.7
BH KTB012	3.5	Calibration	3.7	9.0
BH KTB012	3.5	Calibration	5.1	7.1
RANGE			**3.7 – 18.9**	**4.0 – 9.0**

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. Where Test Type is Single, the water content for the test is natural water content.

4.4.145 The MCV value and moisture content data pairs for all results are given in the figure below, showing the range of potential MCV values and corresponding moisture contents. The individual results from each calibration test are also shown, rather than each calibration line. Individual calibration lines can be viewed in the 2021 GI Factual Report.

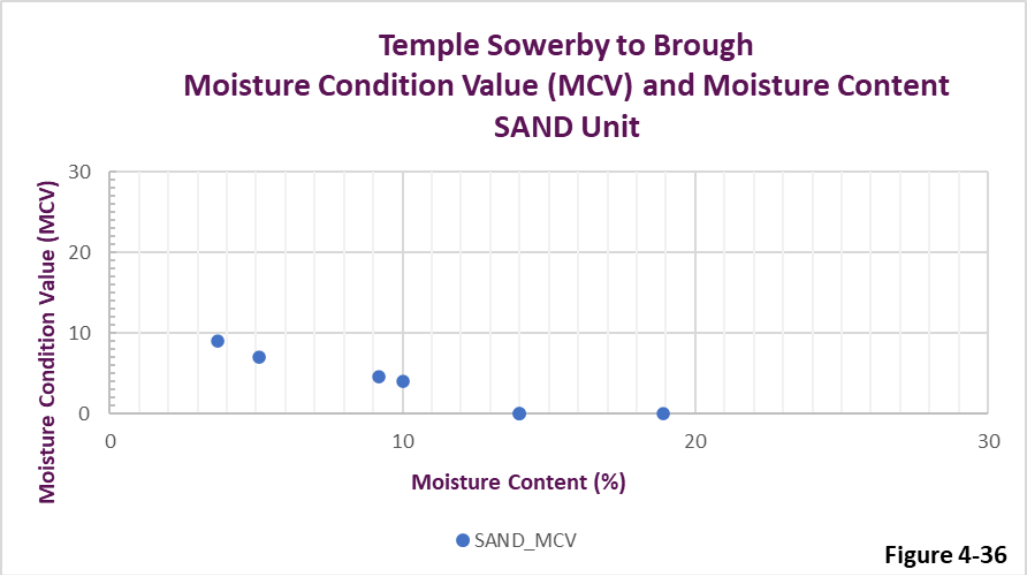

Figure 4-36 SAND - Moisture Condition Value (MCV) and Moisture Content Relationship

4.4.146 In situ plate bearing tests were described above, where equivalent CBR was determined indirectly by relationship with stiffness. In addition to these, laboratory CBR tests were undertaken. For the SAND unit, the results of the tests are given in the following table.

Table 4-55 : SAND - Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content (%)	CBR Top (%)	CBR Bottom (%)
TP AB.borrowpit03	0.35	8.9	21.0	24.0
TP AB.borrowpit03	1.2	13.0	8.0	16.0
RANGE	**0.35 – 1.20**	**8.9 – 13.0**	**8.0 – 21.0**	**16.0 – 24.0**
Notes: 1. mbegl – metres below existing ground level.				

4.4.147 Results of unsoaked laboratory CBR tests are shown in the figure below. As the test is performed on both the top and the bottom of the sample, both results are quoted in the above table and are plotted in the figure below.

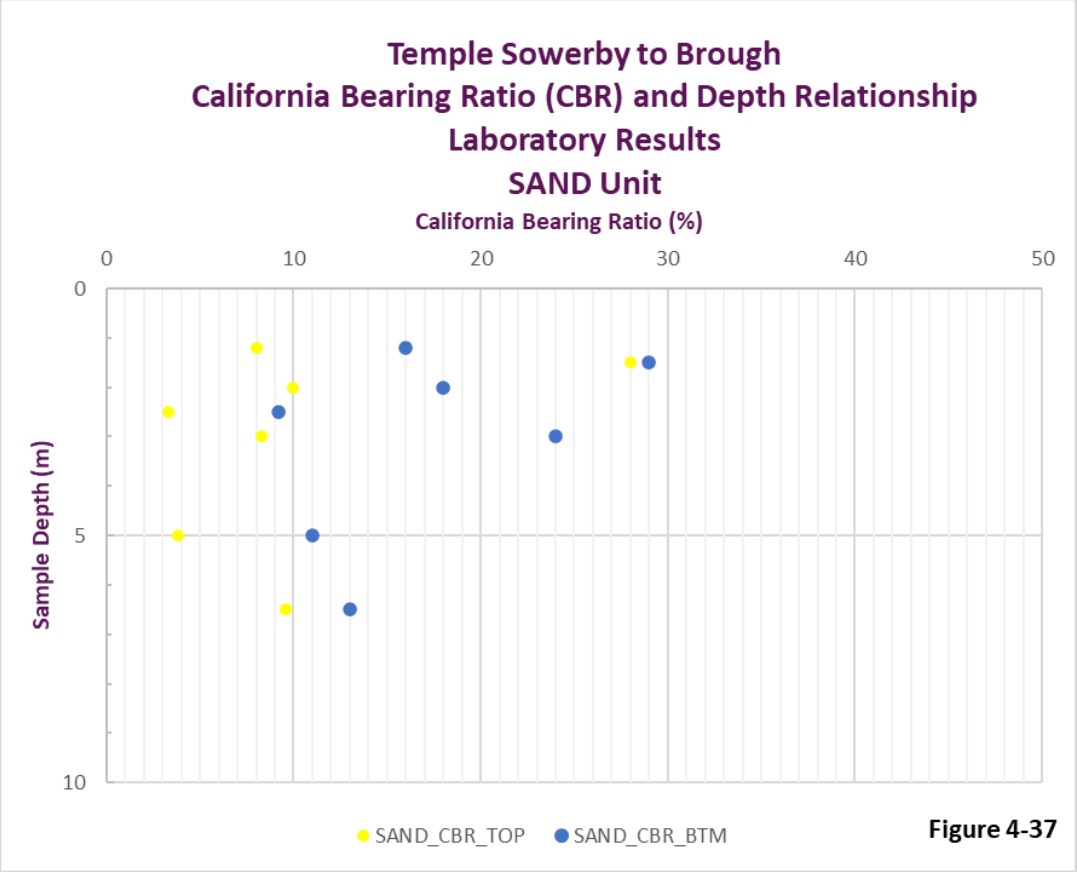

Figure 4-37 SAND - Laboratory CBR and sample depth relationship

4.4.148 Combining the laboratory tests with the in situ plate bearing tests values from Table 4-49 results in Figure 4-38 below.

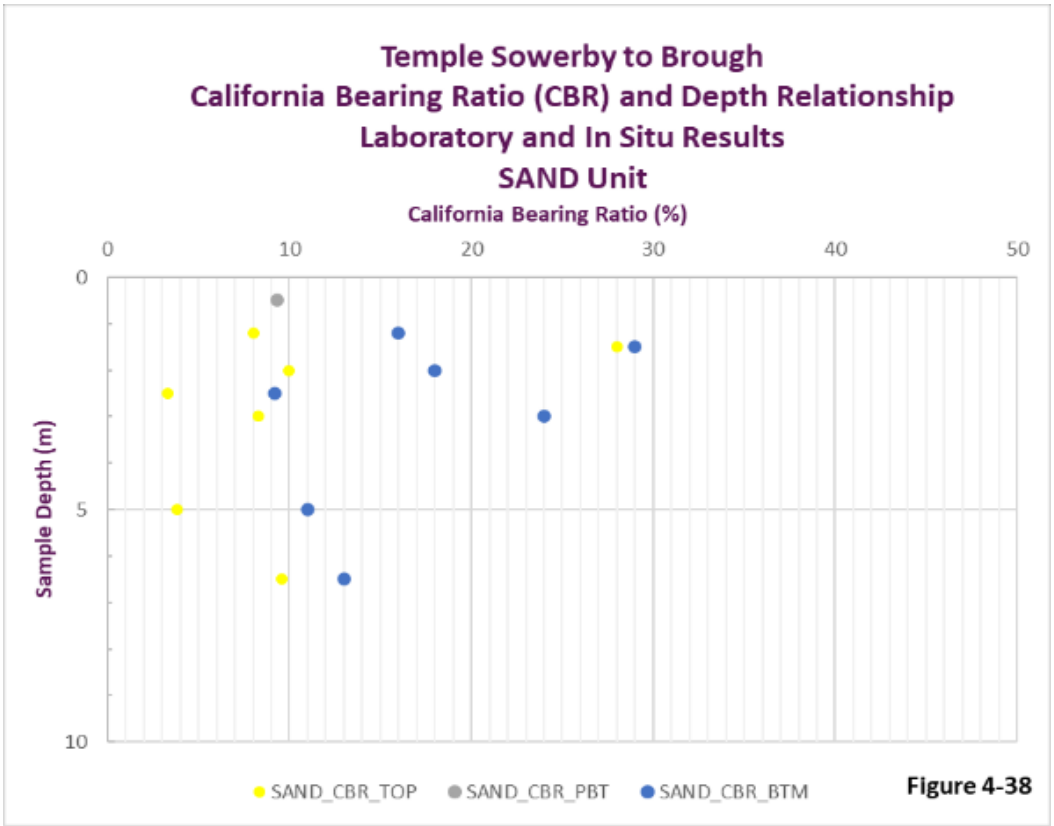

Figure 4-38 SAND - California Bearing Ratio versus depth (lab and in situ results)

4.4.149 Samples of soil were tested to determine sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (26). The pH and sulfate values for the SAND unit are given in the table below. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10mg/l.

Table 4-56 : SAND - pH and Sulfate Concentration - Soil

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
KTB series			
None			
KTA series			
TP KTA006	2.3	7.1	
TP KTB005	1.3	8.0	
AB series			
BH AB001	3.5	7.7	12
BH AB005	1.2	7.7	
BH AB010	1.2	7.2	48
BH AB010	5.0	7.7	17
BH AB024	0.2	7.4	15
BH AB036	1.5	7.7	
TP KTA006	2.3		12

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Sulfate Concentration (mg/l)
TP KTB005	1.3		
RANGE	**0.2 – 5.0**	**7.1 – 8.0**	**12 - 48**
Notes: 1. mbegl – metres below existing ground level.			

Test Results – Bedrock

4.4.150 The bedrock is predominantly sedimentary sandstone, locally the Penrith Sandstone (PS). This particular unit is predominantly cemented fine to medium sand sized particles. In a number of locations the PS is fully weathered and present as a dense sand. Some coarser CONGLOMERATE bands are also present. In the Kirkby Thore bypass section, mudstone of the Eden Shales Formation is present, described as laminated SHALE and MARL, which includes thin bands of evaporite rocks, mainly GYPSUM. The table below lists the exploratory holes where the bedrock was encountered.

Table 4-57 : Exploratory Holes - Bedrock

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		
BH AB001, BH AB008, BH AB009, BH AB010, BH AB012, BH AB012A, BH AB025, BH AB027, BH AB028, BH AB043, BH KTA003, BH KTA004, BH KTB007A, BH KTB010, BH KTB011, BH KTB014, BH KTB016A, BH KTB017, BH KTB019, BH KTB020, BH KTB021 mining, BH KTB022 mining, BH KTB023 mining, BH KTB027, BH KTB028	2.00 – 42.00	Very weak to weak dark reddish brown mottled light grey micaceous distinctly weathered fine to coarse SANDSTONE. Weak light reddish brown mottled light greenish grey matrix supported CONGLOMERATE interbedded with medium strong to weak, thinly to very thinly bedded, wide to medium spaced dark reddish brown mottled light greenish grey micaceous distinctly weathered fine to coarse sandstone. Conglomerate matrix composed of micaceous fine to coarse sandstone. Conglomerate clasts composed of subrounded to well rounded fine to coarse gravel sized fragments of aeolian sandstone, volcaniclastic sandstone and mudstone. Weak (localised extremely weak shale and medium strong gypsum rich marl) light grey, dark grey and pinkish brown distinctly weathered to partially weathered very thinly interbedded to very thinly inter-laminated SHALE, MUDSTONE and MARL (gypsum rich) with extremely closely spaced vertical dendritic to horizontal white, colourless and pink GYPSUM veins (5-45mm thick). Fractures (predominantly drilling induced) are extremely closely spaced to very closely spaced subhorizontal to horizontal

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
		moderately wide to open undulating rough to planar rough with grey slightly sandy slightly gravelly clay infill. Extremely weak reddish brown and grey partially to distinctly weathered thinly interlaminated SHALE and MUDSTONE. Very weak occasionally weak dark reddish brown distinctly weathered fine to medium SANDSTONE. Fractures are medium to extremely close undulating smooth to planar rough moderately wide to tight. Fractures are infilled with sand. Extremely weak reddish brown SANDSTONE recovered as reddish brown slightly gravelly slightly gravelly slightly clayey fine to coarse SAND with occasional gravel sized pockets of yellowish brown fine to coarse sand. Gravel is angular to subangular fine to coarse of predominantly extremely weak reddish brown sandstone and occasional fine to medium quartz, and yellowish brown sandstone.
Notes: 1. mbegl – metres below existing ground level.		

4.4.151 The descriptions for sand in Table 4-57 are typical. Generally described as very weak or extremely weak, the strength of the rock is assessed on the basis of the cores. Further assessment of the mass behaviour is related to fractures and jointing and needs to be a consideration in later stages of design, but is outside the scope of this report.

4.4.152 In situ and laboratory test results for the bedrock are provided in the following charts and tables, with relevant explanation and discussion.

Standard Penetration Tests were undertaken in boreholes, generally in the upper weathered horizon which comprised dense sand and gravel. The raw test values were standardised to a hammer energy of 60% (N60) and the range of values is presented in the table below. In all cases, the test drive could not be completed and SPT N60 was consequently in excess of 50, often for less than 50mm penetration. This would be expected in bedrock or even the highly weathered rock horizon.

Table 4-58 : Bedrock (Weathered) - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
All boreholes	2.1 – 13.1	>50
BH KTB series	5.0 – 12.0	>50

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
BH KTA series	8.2	>50
BH AB series	2.1 – 13.1	>50
Notes: 1. mbegl – metres below existing ground level.		

4.4.153 Bulk density and dry density were determined on a number of samples as part of the UCS test and the ranges are provided for each rock type in the table below.

Table 4-59 : Bedrock - Bulk and Dry Density Ranges

Exploratory Holes	Rock Type	Bulk Density Range (kg/m^3)	Dry Density Range (kg/m^3)
BH AB001, BH AB009, BH AB043, BH KTA004, BH KTB010, BH KTB011, BH KTB027	SANDSTONE	2280 - 2440	2090 - 2290
BH AB001, BH KTA004, BH KTB022 mining, BH KTB023 mining	MUDSTONE	2290 - 2430	2050 - 2280
BH AB001, BH AB009, BH AB010, BH AB043	CONGLOMERATE	2290 - 2540	2090 - 2430

4.4.154 Remaining relevant tests on rock at this stage of design were assessment of strength using unconfined compression and point load index tests. Values obtained are given in the following tables. In the factual report on the 2021 GI it was noted that the majority of these tests were “non-standard”. The reason cited was generally in relation to the ratio of sample length to diameter (L/D) being less than 2.5, the preferred minimum in the standard test. Given the weak and fractured nature of the rock in general, it was impossible to find intact lengths meeting the criteria and test pieces were identified that were as close as possible to the preferred length, generally providing a ratio of L/D=2.

Table 4-60 : Bedrock - Unconfined Compression Test Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Unconfined Compressive Strength (MPa)
SANDSTONE		
BH AB001	12.29	0.7
BH AB009	14.27	4.2
BH AB043	14.7	1.4
BH KTA004	12.21	8.6
BH KTB010	8.93	0.8
BH KTB010	10.01	1.8
BH KTB010	13.67	0.6
BH KTB010	14.68	1.4
BH KTB011	12.19	2.7
BH KTB011	12.38	0.9
BH KTB011	14.31	4.4
BH KTB027	13.58	2.4
RANGE	**8.93 – 14.70**	**0.6 – 8.6**
MUDSTONE		

Exploratory Holes	Sample Depth (mbegl) Note 1	Unconfined Compressive Strength (MPa)
BH AB001	10.52	0.7
BH KTA004	11.02	0.6
BH KTA004	14.95	1.1
BH KTB022 mining	8.03	3.7
BH KTB022 mining	10.91	2.5
BH KTB022 mining	15	4.4
BH KTB022 mining	18.37	4.4
BH KTB023 mining	25.15	2.9
BH KTB023 mining	30.15	6.1
RANGE	**8.03 – 30.15**	**0.6 – 6.1**
CONGLOMERATE		
BH AB001	15.02	0.9
BH AB009	21.33	4.9
BH AB009	21.56	8.6
BH AB010	13.19	0.6
BH AB010	14.89	1.3
BH AB010	15.53	1.4
BH AB010	17.39	11.6
BH AB010	17.76	0.6
BH AB010	18.72	1.9
BH AB043	11.34	3.8
BH AB043	11.97	6.6
RANGE	**11.34 – 21.56**	**0.6 – 11.6**

Notes:
1. mbegl – metres below existing ground level.

Table 4-61 : Bedrock - Point Load Index Test Results

Exploratory Holes	Sample Depth Range (mbegl) Note 1	Point Load Index Test Index Value (MPa) Note 2	Unconfined Compressive Strength from UCS/Is(50) correlation Note 3
SANDSTONE			
BH AB001	11.22 - 13.80	0.02	0.4
BH AB009	13.36 - 15.72	0.16	3.2
BH AB027	14.60 - 18.67	0.05	1.0
BH AB028	10.19 - 19.19	0.05	1.0
BH AB043	9.70 - 17.16	0.01	0.2
BH KTA003	8.02 - 13.50	0.06	1.2
BH KTA004	9.00 - 15.75	0.12	2.4
BH KTB010	5.16 - 12.83	0.02	0.4
BH KTB011	5.89 - 13.65	0.01	0.2
BH KTB014	7.65 - 9.52	0.01	0.2
BH KTB016A	6.17 - 9.53	0.00	0.0
BH KTB017	7.96 - 7.96	0.00	0.0
BH KTB019	12.64 - 14.47	0.03	0.6
BH KTB020	12.30 - 14.61	0.05	1.0
BH KTB027	5.01 - 14.90	0.04	0.8
BH KTB028	6.69 - 9.87	0.03	0.6
RANGE	**5.01 – 19.19**	**0.00 – 0.16**	**0.0 – 3.2**
MUDSTONE			
BH KTB021 mining	7.13 - 28.60	0.38	3.8
BH KTB022 mining	12.12 - 40.07	0.55	5.5
BH KTB023 mining	14.55 - 34.88	0.54	5.4
RANGE	**7.13 – 40.07**	**0.38 – 0.55**	**3.8 – 5.5**
CONGLOMERATE			
BH AB001	9.48 - 15.34	0.21	4.2

Exploratory Holes	Sample Depth Range (mbegl) Note 1	Point Load Index Test Index Value (MPa) Note 2	Unconfined Compressive Strength from UCS/Is(50) correlation Note 3
BH AB010	11.80 – 25.0	0.04	0.8
BH AB043	10.91	0.06	1.2
RANGE	**9.48 – 25.0**	**0.04 – 0.21**	**0.8 – 4.2**

Notes:
1. mbegl – metres below existing ground level
2. Values are average of all results for each exploratory hole.
3. Refer to 4.2.20 – for sandstone and conglomerate C=20; for mudstone C=10

4.4.155 As noted in the above table, UCS has also been calculated from the standard correlation described in 4.2.20, UCS = C * Is(50) where C=10 for mudstone and C=20 for sandstone and conglomerate. These correlations offer results in the same range of magnitude as the UCS tests, confirming the weak nature of all the rock types encountered.

4.4.156 Shearbox tests that were undertaken on samples of the SAND unit described earlier, are likely to provide suitable shear strength parameters for the highly weathered rock, particularly the weathered Penrith Sandstone.

4.4.157 Sulfate and pH determinations were not made directly on any rock samples. However, it is likely that the range of sulfate concentrations and pH values for the SAND unit will be applicable to the weathered and intact rock, given the origin of the SAND unit is the Penrith Sandstone in most cases.

Derived Parameters - Introduction

The following section provides a review of each of the principal geological units present within the route corridor. Its purpose is to summarise the results of the in situ and laboratory tests undertaken in the 2021 GI and to derive ranges of relevant engineering parameters to guide decisions in future geotechnical design of earthworks and foundations for structures. Where known correlations are helpful, values are derived from them and presented together with values determined directly by in situ or laboratory tests. Each geological unit is considered in turn and a summary of parameters and ranges is provided for each.

Going forward, the detailed design stage, in development of the Geotechnical Design Report(s), will likely use these summary parameters as a basis for characteristic values for design, appropriate to the design scenarios and use cases that apply to each particular design, whether for earthworks, structures or other relevant geotechnical application, for example reinforced soil.

Derived Parameters – MG_CO (Made Ground Cohesive)

4.4.158 This section is not applicable at this stage. The presence of this material is not precluded and may be found in later planned stages of investigation. Given that the material is generally re-worked cohesive glacial till, it follows that the parameters derived for that material can be

reasonably used in the localised areas where this material is present. Refer to *Derived Parameters – Cohesive Glacial Till* section which follows.

4.4.159 This section will however be updated as necessary following the planned phase 2 investigation in a future addendum/revision following such.

Derived Parameters – MG_GR (Made Ground Granular)

4.4.160 Only a single occurrence of this material was found during the 2021 GI. This material is generally encountered as part of existing road construction, present as sub-base, capping and drainage layers below road pavements and beneath footpaths. This anthropogenic material will be more widespread and should be expected anywhere that roads and footpaths currently exist. Excavation of these areas is likely to produce materials that will be suitable 'as dug' for general fill in accordance with the SHW.

4.4.161 Given the likely origin of these materials is local fluvioglacial and granular glacial tills, it follows that the parameters derived for those materials can be reasonably used in the areas where this material is found. Refer to *Derived Parameters - Granular Glacial Till* section which follows.

Derived Parameters - Granular Glacial Till

4.4.162 This section combines the various **granular** tills (GT_S and FL_GT) as they are derived from the same geological sources and will exhibit similar behaviour, being materials which drain readily and have frictional drained strength characteristics.

4.4.163 From the 2021 GI Factual Report, the following table provides a summary of relevant derived parameters for design for Granular Glacial Till.

4.4.164 The range of in situ tests included Standard Penetration Tests. Given the methodology described in section 4.2, the referenced correlation between SPT N value and effective angle of internal friction has also been used to derive values for comparison with those determined directly from laboratory shearbox testing. For the range of SPT N60 values determined for the granular glacial till (4 to 50), the relationship in Figure 4-2 indicates corresponding effective internal angle of friction in the range 28 to 41 degrees.

Table 4-62 : Granular Glacial Till - Derived Parameters

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Bulk Density	Shearbox	Mg/m3	1.81 – 2.31	2.02	2.00 Mg/m³
	BS8002	kN/m3 Mg/m3	18 – 23 1.83 – 2.34	21 2.14	2.14 Mg/m³
Dry Density	Shearbox	Mg/m3	1.58 – 1.98	1.79	1.80 Mg/m³
Internal Angle of Friction phi' **Note 1**	Shearbox	degrees	29.0 – 41.5 (GT_S) 32.0 – 44.0 (FL_GT)	34.9 37.0	35.0 degrees
	Peck et al (SPT N)	degrees	28 - 41	34.5	34.5

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Maximum Dry Density & Moisture Content	Standard Compaction (2.5kg)	Mg/m3 %	1.83 – 2.87 6.0 – 15.0	**Note 2**	2.00 Mg/m^3 8.0% – 12.0%
Moisture Condition Value (MCV) & Moisture Content	MCV Test	Value %	0.0 – 13.2 3.7 – 17.0	**Note 3**	5 – 10 8.0% – 12.0%
Permeability	Infiltration Tests BRE DG365	m/s	3.45 x 10^{-6} (GT_S) (No tests in FL_GT)	Not applicable	3.45 x 10^{-6}
Subgrade surface modulus	Lightweight Deflectometer	MPa	22 - 109	46.8	45 MPa
Sulfate/pH	BRE SD1	mg/l pH units	10 – 370 6.2 – 11.0	Not applicable	<100mg/l pH 6.0 – 8.0 **Note 4**

TYPICAL MATERIAL DESCRIPTIONS:

Brown very gravelly clayey fine to coarse SAND with medium cobble content. Gravel is subangular to subrounded fine to coarse of mixed lithologies. Cobbles are subrounded of mixed lithologies.

Orangish brown clayey sandy GRAVEL with low cobble content.

Medium dense greyish brown very sandy slightly clayey subangular to rounded fine to coarse GRAVEL of mixed lithologies including mudstone with medium cobble content. Sand is fine to coarse.

Medium dense orangish brown slightly silty very sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to rounded fine to coarse of sandstone and infrequent mudstone.

Notes:

1. Complementary values of apparent cohesion have been discounted.

2. A single mean value is not justified as a range of moisture contents and dry densities are likely to provide suitable levels of compaction in the field.

3. A single mean value is not justified as a range of moisture contents and corresponding MCV values are likely to relate to the range of suitable dry densities determined by compaction trials. However, for the 8% - 12% moisture content range in the compaction tests, corresponding MCV values are in the 5 – 10 range.

4. Values of sulfate and corresponding pH are generally in the range stated, with extreme values deemed outliers.

Derived Parameters – Cohesive Glacial Till

4.4.165 This section combines the various **cohesive** tills (GT_V and GT_CO) as they are derived from the same geological sources and will exhibit similar behaviour, being materials of very low permeability which drain slowly and hence have both undrained and drained strength characteristics.

4.4.166 From the 2021 GI Factual Report, the following table provides a summary of relevant derived parameters for design for Cohesive Glacial Till.

4.4.167 The range of in situ tests included Standard Penetration Tests. Given the methodology described in section 4.2, the referenced correlation between SPT N value and undrained shear strength has also been used to derive values for comparison with those determined directly from laboratory triaxial testing.

Table 4-63 : Cohesive Glacial Till - Derived Parameters

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Bulk Density	Triaxial	Mg/m3	1.80 – 2.37	2.21	2.0 Mg/m^3
	BS8002	kN/m3 Mg/m3	18 – 22 1.83 – 2.24	20 2.04	2.0 Mg/m^3
Dry Density	Triaxial	Mg/m3	1.36 – 2.16	1.94	1.90 Mg/m^3
Undrained Shear Strength	Triaxial	kPa	5 – 152 (GT_V) 7 – 351 (GT_CO) **Note 1**	-	40kPa – 75kPa
	Stroud f1 = 5 for PI 20 Range N60 4 to 54	kPa	20 - 270	-	-
Apparent Effective Cohesion / Internal Angle of Friction c' / phi' **Note 2**	Triaxial	kPa/ degrees	1.0/21.9 – 2.0/36.0	-	30.0 degrees
Maximum Dry Density & Moisture Content	Standard Compaction (2.5kg)	Mg/m3 %	1.35 – 2.25 5.9 – 30.0	**Note 3**	2.00 Mg/m^3 6.0% – 14.0%
Moisture Condition Value (MCV) & Moisture Content	MCV Test	Value %	0.0 – 14.8 3.8 – 23.0	**Note 4**	5 – 15 6.0% – 14.0%
Permeability	Infiltration Tests BRE DG365	m/s	3.76 x 10^{-6} (GT_V) (No measurable infiltration in GT_CO)	Not applicable	3.76 x 10^{-6}
Subgrade surface modulus	Lightweight Deflectometer	MPa	54 - 102	85.5	54 MPa
Sulfate/pH	BRE SD1	mg/l pH units	10 – 490 5.0 – 8.7	Not applicable	<120mg/l pH 5.0 – 9.0 **Note 5**

TYPICAL MATERIAL DESCRIPTIONS:

Reddish brown and yellow slightly gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse grey sandstone, mudstone and quartzite.

Orangish brown very gravelly clayey fine to coarse SAND with low cobble content.

Firm brown yellowish brown and grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies. Cobbles are subangular to subrounded of mixed lithologies.

Firm dark reddish brown mottled black slightly gravelly sandy CLAY with occasional pockets of yellowish grey fine to coarse sand up to 8mm. Gravel is subangular to subrounded fine to coarse of sandstone, volcaniclastic sandstone and mudstone.

Notes:

1. A very wide range of undrained shear strength results were obtained from laboratory testing. There was no obvious concentration around a value that might be considered a mean value, however sufficient results were in excess of 40kPa to classify the materials medium strength (BS5930). The corresponding range from BS5930 is 40kPa to 75kPa, which has been adopted.

2. Triaxial results invariably included an apparent cohesion, which is generally an artefact of testing and dissipates over the longer term. It is generally accepted that this should be ignored and the angle of internal friction alone provides the strength. Given this the range of results cannot support a single mean value, so none is reported. However, based on the range of results a suitable conservative derived value of 30 degrees has

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
been adopted. This is supported by the mean values of the p'/q calculation which gave a range 28.0 to 31.7 for the GT_CO. 3. A single mean value cannot be stated, given the range of results includes some very low values which are unrealistic. Discounting extreme low and high values does suggest maximum dry density around 2.0Mg/m3 and moisture content in the range 6% to 14%. 4. A single mean value is not justified as a range of moisture contents and corresponding MCV values are likely to relate to the range of suitable dry densities determined by compaction trials. However, for the 6% - 14% moisture content range in the compaction tests, corresponding MCV values are in the 5 – 10 range. 5. Values of sulfate and corresponding pH are generally in the range stated, with extreme values deemed outliers.					

Derived Parameters - SAND

4.4.168 From the 2021 GI Factual Report, the following table provides a summary of relevant derived parameters for design for the granular SAND unit.

4.4.169 The range of in situ tests included Standard Penetration Tests. Given the methodology described in section 4.2, the referenced correlation between SPT N value and effective angle of internal friction has also been used to derive values for comparison with those determined directly from laboratory shearbox testing. For the range of SPT N60 values determined for the SAND (1 to 50), the relationship in Figure 4-2 indicates corresponding effective internal angle of friction in the range 28 to 41 degrees.

Table 4-64 : SAND - Derived Parameters

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Bulk Density	Shearbox	Mg/m3	1.72 – 2.24	1.97	2.00 Mg/m^3
	BS8002	kN/m3 Mg/m3	17 – 22 1.73 – 2.24	19.5 1.99	2.00 Mg/m^3
Dry Density	Shearbox	Mg/m3	1.60 – 1.96	1.76	1.70 Mg/m^3
Internal Angle of Friction phi' **Note 1**	Shearbox	degrees	29.5 – 46.5	38.0	38.0 degrees
	Peck et al (SPT N)	degrees	28 - 41	34.5	34.5
Maximum Dry Density & Moisture Content	Standard Compaction (2.5kg)	Mg/m3 %	1.75 – 2.00 8.8 – 13.0	**Note 2**	1.75 Mg/m^3 8.8% – 13.0%
Moisture Condition Value (MCV) & Moisture Content	MCV Test	Value %	4.0 – 9.0 3.7 – 18.9	**Note 3**	4 - 9 3.7% – 10.0%
Permeability	Infiltration Tests BRE DG365	m/s	No measurable infiltration during test.	**Note 4**	1.0 x 10^{-4}
Subgrade surface modulus	Lightweight Deflectometer	MPa	84 - 134	112	84 MPa

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Sulfate/pH	BRE SD1	mg/l pH units	12 - 48 7.1 – 8.0	Not applicable	<50mg/l pH 7.0 – 8.0 **Note 5**
TYPICAL MATERIAL DESCRIPTIONS:					
Brown very gravelly clayey fine to coarse SAND with medium cobble content. Gravel is subangular to subrounded fine to coarse of mixed lithologies. Cobbles are subrounded of mixed lithologies. Extremely weak red fine to coarse SANDSTONE recovered as locally slightly gravelly silty fine to coarse sand of quartz. Gravel is fine of sandstone. (Possible Weathered Bedrock). Very dense reddish brown slightly gravelly fine to coarse SAND. Gravel is fine subangular to subrounded of mixed lithologies. (Possible highly weathered sandstone)					
Notes: 1. Complementary values of apparent cohesion have been discounted. 2. A single mean value is not justified as a range of moisture contents and dry densities are likely to provide suitable levels of compaction in the field. 3. A single mean value is not justified as a range of moisture contents and corresponding MCV values are likely to relate to the range of suitable dry densities determined by compaction trials. However, for the 3.7% - 10.0% moisture content range in the tests, corresponding MCV values are in the 4 – 9 range. 4. For a sand and gravel mixture, 1.0 x 10^{-4} m/s is typical. 5. Values of sulfate and corresponding pH are generally in the range stated, with extreme values deemed outliers.					

Derived Parameters – Bedrock

4.4.170 From the 2021 GI Factual Report, the following table provides a summary of relevant derived parameters for design for the bedrock unit. As described earlier, bedrock is predominantly sandstone of the Penrith Sandstone formation, but some mudstone and conglomerate were also encountered as described earlier. Derived parameters are given for these separate types.

Table 4-65 : Bedrock – Derived Parameters

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Bulk Density	UCS (Sandstone)	kg/m3	2280 - 2440	2360	2360
	UCS (Mudstone)	kg/m3	2290 - 2430	2360	2360
	UCS (Conglomerate)	kg/m3	2290 - 2540	2415	2415
Dry Density	UCS (Sandstone)	kg/m3	2090 - 2290	2190	2190
	UCS (Mudstone)	kg/m3	2050 - 2280	2165	2165
	UCS (Conglomerate)	kg/m3	2090 - 2430	2260	2260
Unconfined Compressive Strength (UCS)	UCS (Sandstone)	MPa	0.6 – 8.6	4.6	4.6
	UCS (Mudstone)	MPa	0.6 – 6.1	3.4	3.4
	UCS (Conglomerate)	MPa	0.6 – 11.6	6.1	6.1
Point Load Index	UCS (Sandstone)	MPa	0.0 – 0.16	0.1	0.1
	UCS (Mudstone)	MPa	0.38 – 0.55	0.5	0.5
	UCS (Conglomerate)	MPa	0.04 – 0.21	0.1	0.1
Unconfined Compressive Strength (UCS)	UCS/Is(50) correlation (Sandstone)	MPa	0.0 – 3.2	1.6	1.6
	UCS/Is(50) correlation (Mudstone)	MPa	3.8 – 5.5	4.6	4.6

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
	UCS/Is(50) correlation (Conglomerate)	MPa	0.8 – 4.2	2.5	2.5

TYPICAL MATERIAL DESCRIPTIONS:

Very weak to weak dark reddish brown mottled light grey micaceous distinctly weathered fine to coarse SANDSTONE.

Weak light reddish brown mottled light greenish grey matrix supported CONGLOMERATE interbedded with medium strong to weak, thinly to very thinly bedded, wide to medium spaced dark reddish brown mottled light greenish grey micaceous distinctly weathered fine to coarse sandstone. Conglomerate matrix composed of micaceous fine to coarse sandstone. Conglomerate clasts composed of subrounded to well rounded fine to coarse gravel sized fragments of aeolian sandstone, volcaniclastic sandstone and mudstone.

Weak (localised extremely weak shale and medium strong gypsum rich marl) light grey, dark grey and pinkish brown distinctly weathered to partially weathered very thinly interbedded to very thinly inter-laminated SHALE, MUDSTONE and MARL (gypsum rich) with extremely closely spaced vertical dendritic to horizontal white, colourless and pink GYPSUM veins (5-45mm thick). Fractures (predominantly drilling induced) are extremely closely spaced to very closely spaced subhorizontal to horizontal moderately wide to open undulating rough to planar rough with grey slightly sandy slightly gravelly clay infill.

Extremely weak reddish brown and grey partially to distinctly weathered thinly interlaminated SHALE and MUDSTONE.

Very weak occasionally weak dark reddish brown distinctly weathered fine to medium SANDSTONE. Fractures are medium to extremely close undulating smooth to planar rough moderately wide to tight. Fractures are infilled with sand.

Extremely weak reddish brown SANDSTONE recovered as reddish brown slightly gravelly slightly gravelly slightly clayey fine to coarse SAND with occasional gravel sized pockets of yellowish brown fine to coarse sand. Gravel is angular to subangular fine to coarse of predominantly extremely weak reddish brown sandstone and occasional fine to medium quartz, and yellowish brown sandstone.

4.5 Ground Summary

Geotechnical Overview

4.5.1 From the foregoing review of test results and derivation of parameters, the summary of the ground (materials and derived parameters) for the project area between Temple Sowerby and Brough can be assessed. The ground model considers the whole area between these project limits, while the corresponding impacts on the individual schemes are considered separately in the Engineering Assessment in section 9 of the report.

Temple Sowerby to Appleby

4.5.2 Longitudinal geological sections listed in Table 1-1 are provided in Appendix A. These are provided with the corresponding proposed earthworks and there are 11 sheets. In the following sections these will be referred to as “Sheet X of 11” for simplicity, commencing with Sheet 1 of 11.

4.5.3 The new route commences to the east of Temple Sowerby at scheme chainage 29 950m, Sheet 1 of 11. The new route follows the existing A66 until chainage 30 150m and is formed in cutting up to 0.9m deep between these points. The material profile in the cutting is expected to be topsoil overlying cohesive glacial till, which is in turn underlain by sand. The cutting will be formed predominantly in the glacial till. Short term and long term shear strength of the till can be taken from Table 4-63. These parameters (40kPa – 75kPa undrained, phi’ 30 degrees drained) will accommodate the proposed cutting slopes of 1 vertical to 3 horizontal (1V:3H). The factual information indicates that the rate of seepage from the tills will be low, with few water strikes recorded during drilling and permeability of the order of 1 x 10^{-6} m/s. Material excavated from the cutting is likely to be suitable as fill, with the proportion dependent on the actual moisture content of the material, although typical treatment with lime will render the bulk of the material suitable. Subgrade stiffness in the till is likely to be adequate for pavement construction, although the design of the pavement layers and any capping requirements will be dependent on conditions at time of construction and would be detrimentally impacted by wet weather.

4.5.4 From here the new route leaves the existing A66 in a north-easterly direction. The route is formed on embankment up to 4.5m in height, from chainage 30 150m to 30 800m. From chainage 30 150m to the proposed Spitals Farm Underpass at chainage 30 300m, the embankment is likely to be formed on granular glacial till, underlain by bedrock of the Penrith Sandstone formation. Soil and rock parameters in Table 4-62 and Table 4-65 apply and these indicate that adequate bearing and settlement control are available on the predominantly granular materials. Settlement beneath proposed embankments is expected to be immediate or readily built out during construction. From chainage 30 300m to 30 800m, the embankment is likely to be formed on cohesive glacial till. This material is generally present at surface

beneath topsoil and is underlain or interbedded with granular till or sand layers. The thickness of the cohesive till is generally less than 3m in any individual horizon. Consolidation settlement is to be expected, but magnitude under low embankment will be tolerable and likely to be dissipated within the construction time frame. Cohesive tills are expected to be strong enough foundation materials to provide support and stability to proposed embankments.

4.5.5 From chainage 30 800m to 31 450m (Sheet 2), the proposed route is again formed on embankment, with a new underpass at chainage 31 100m to accommodate the Priest Lane Bridleway. The embankment is effectively in two sections either side of the bridleway. On the west side from 30 800m to 31 100m, the maximum embankment height is of the order of 4.5m.The maximum embankment height is of the order of 6m on the east side, from chainage 31 100m to 31 450m.

4.5.6 The embankment section from 30 800m to 31 100m is formed on granular glacial till which is underlain by sand. Although not proven in the 2021 GI, the sand is expected to be underlain by the Penrith Sandstone. Soil and rock parameters in Table 4-62, Table 4-64 and Table 4-65 apply and these indicate that adequate bearing and settlement control are available on the predominantly granular materials. Settlement beneath proposed embankments is expected to be immediate or readily built out during construction.

4.5.7 From chainage 31 100m to 31 450m, the embankment is likely to be formed on cohesive glacial till. This material is generally present at surface beneath topsoil and is underlain by granular till or sand layers. Although not proven in the 2021 GI, the sand is expected to be underlain by the Penrith Sandstone. The thickness of the cohesive till is generally less than 3m in any individual horizon. Consolidation settlement is to be expected, but magnitude under low embankment will be tolerable and likely to be dissipated within the construction time frame, especially given the granular layers which assist in drainage during consolidation. Cohesive tills are expected to be strong enough to provide support and stability to proposed embankments. Soil parameters in Table 4-62 and Table 4-63 apply.

4.5.8 A major new cutting is required around the village of Kirkby Thore. This commences from chainage 31 450m with a depth of around 3m and then deepens to generally between 7m and 9m depth until chainage 33 850m (Sheets 4 and 5). Throughout, the cutting will be formed in cohesive glacial till. In general this is underlain by sand and Penrith Sandstone, although from 32 800m the bedrock was not proven in the 2021 GI. In the western part of the cutting, sand layers may be present in the cutting faces and will present requirements for erosion protection and drainage. In the majority of the cutting, cohesive till is likely to be the material forming the full cutting depth. In this cutting, overbridges are present at Cross Street (chainage 31 600m), Kirkby Thore Bridleway (chainage 32 170m), Main Street (chainage 32 800m) and Sleastonhow Lane (chainage 33 350m). Soil parameters in Table 4-63 are applicable and indicate that proposed slope angles (1V:3H) will be stable in the long and short term. Cohesive

glacial till will be present in the base of the cutting and pavement design will need to take account of relevant subgrade stiffness. This is considered in the Engineering Assessment.

4.5.9 From the end of the cutting around Kirkby Thore, the route crosses the flood plain of the Trout Beck on a new viaduct. The west approach embankment from chainage 33 850m to chainage 34 000m approximately, is of the order of 7m in height, with a similar embankment from chainage 34 400m to 34 600m (Sheet 6).

4.5.10 The route continues from the viaduct in cutting up to 7m deep until chainage 35 250m, where the route is crossed by a new bridge providing access to Long Marton. This cutting will be formed in cohesive glacial till. The till is underlain by Penrith Sandstone at depth, so till is expected in the cutting faces over their full depth. Soil parameters in Table 4-63 are applicable and indicate that proposed slope angles (1V:3H) will be stable in the long and short term. Cohesive glacial till will be present in the base of the cutting and pavement design will need to take account of relevant subgrade stiffness. This is considered in the Engineering Assessment.

4.5.11 From chainage 35 250m to 35 700m (Sheet 7), the route continues on embankment up to 8m in height. This embankment will be formed on cohesive glacial till which has been proven to a depth of 7m and may be locally deeper. Where the base of the till was proven in the 2021 GI, this was underlain by granular glacial till. Soil parameters in Table 4-63 are applicable and indicate that proposed slope angles (1V:3H) will be stable in the long and short term. The thickness of the cohesive till is significant. Consolidation settlement is to be expected and may be of significant magnitude under the high embankment. Planning around construction timing and measures to accelerate settlement may be required and will be considered in the Engineering Assessment section. Cohesive tills are expected to be strong enough to provide support and stability to proposed embankments.

4.5.12 The route is formed in cutting from chainage 35 700m to 36 500m (Sheet 8). This is a significant cutting of the order of 8m to 9m in depth. The cutting will be formed entirely in cohesive glacial till. The base of the cohesive till was not proven in the 2021 GI, but is likely to be underlain by sand and/or weathered and intact Penrith Sandstone. Soil parameters in Table 4-63 are applicable and indicate that proposed slope angles (1V:3H) will be stable in the long and short term. Cohesive glacial till will be present in the base of the cutting and pavement design will need to take account of relevant subgrade stiffness. This is considered in the Engineering Assessment.

4.5.13 From chainage 36 500m to 36 850m (Sheet 9) the route is formed on embankment up to 7.5m in height. At chainage 36 700m, an underpass is provided for the Crackenthorpe to Roman Road Bridleway. The embankment is underlain by cohesive glacial till in general, although individual exploratory holes showed interbedding with layers of granular glacial till. The till was proven to 6.5m depth, but may be thicker. Soil parameters in Table 4-62 and Table 4-63 are

applicable and indicate that proposed slope angles (1V:3H) will be stable in the long and short term. The thickness of the cohesive till is significant. Consolidation settlement is to be expected and may be of significant magnitude under the high embankment. Planning around construction timing and measures to accelerate settlement may be required and will be considered in the Engineering Assessment section. Cohesive and granular tills are expected to be strong enough to provide support and stability to proposed embankments.

4.5.14 The route is formed in cutting from chainage 36 850m to 37 200m (Sheet 9). This is a significant cutting of the order of 5m to 6m in depth. The cutting will be formed entirely in cohesive glacial till. The base of the cohesive till was not proven in the 2021 GI, but is likely to be underlain by sand and/or weathered and intact Penrith Sandstone. Soil parameters in Table 4-63 are applicable and indicate that proposed slope angles (1V:3H) will be stable in the long and short term. Cohesive glacial till will be present in the base of the cutting and pavement design will need to take account of relevant subgrade stiffness. This is considered in the Engineering Assessment.

4.5.15 A short embankment of the order of 4m height is required from chainage 37 200m to 37 400m. The Roger Head Farm underpass is provided beneath this section. Cohesive glacial till is generally present at surface beneath topsoil and has been proven to a depth of 3.4m, although it could be thicker. Consolidation settlement is to be expected, but magnitude under low embankment will be tolerable and likely to be adequately dissipated within the construction time frame. Cohesive tills are expected to be strong enough to provide support and stability to proposed embankments. Soil parameters in Table 4-63 apply.

4.5.16 The route is then formed in cutting from chainage 37 400m to 37 950m (Sheets 10 and 11). This is a significant cutting up to 8m in depth. The cutting will be formed entirely in cohesive glacial till. Exploratory holes proved the till to 12.45m depth, but the base of the cohesive till was not proven in the 2021 GI. It is likely to be underlain by sand and/or weathered and intact Penrith Sandstone. Soil parameters in Table 4-63 are applicable and indicate that proposed slope angles (1V:3H) will be stable in the long and short term. Cohesive glacial till will be present in the base of the cutting and pavement design will need to take account of relevant subgrade stiffness. This is considered in the Engineering Assessment.

4.5.17 From chainage 37 950m to 38 400m, the road is alternately formed in short sections of low embankment, shallow cutting or at-grade as it merges onto the original A66 to the west of Appleby. The route effectively connects where the existing Settle to Carlisle railway bridge crosses over the A66 dual carriageway.

Appleby to Brough (Warcop)

4.5.18 Longitudinal geological sections for this section are listed in Table 1-1 and are provided in Appendix A. These are provided with the corresponding proposed earthworks. In the following

sections these will be referred to as “Sheet X of 11” for simplicity, commencing with Sheet 1 of 11.

4.5.19 The new route commences to the west of Appleby at scheme chainage 39 900m, Sheet 1 of 11. The new route follows the existing A66 for the initial part, re-building and incorporating the existing A66 as the east bound carriageway of the new route. The proposed scheme effectively upgrades the existing road and adds a new west bound carriageway immediately to the south. Given this form of construction and the sidelong nature of the ground, which falls from north to south, the west bound carriageway is built partially at-grade or with nominal height embankment. Similarly, the east bound carriageway may require some nominal cutting to accommodate widening to the north along the route. This format extends from chainage 39 900m to 41 000m (Sheet 2). The material profile is expected to comprise topsoil overlying granular glacial till, which is in turn underlain by sand, weathered sandstone and bedrock. Bedrock is a sequence of Penrith Sandstone and Brockram Conglomerate. In the central portion of this section, it is possible that cohesive glacial till will be encountered.

4.5.20 Whether at-grade, nominal embankment or nominal cutting, glacial till will be the material at formation level. The granular glacial till extends to 9.4m depth in exploratory holes. Where cohesive till was encountered in the 2021 GI, this extended to 7m depth. Soil properties can be taken from Table 4-62 and Table 4-63. These parameters will accommodate the proposed cutting slopes of 1 vertical to 3 horizontal (1V:3H). The factual information indicates that the rate of seepage from the tills will be low, with few water strikes recorded during drilling and permeability of the order of 1 x 10^{-6} m/s. Material excavated from the cutting areas is likely to be suitable as fill, with the proportion dependent on the actual moisture content of the material. For granular till, the in situ moisture content is likely to be suitable, although cohesive till will likely require treatment with lime to render the bulk of the material suitable. Subgrade stiffness in the till is likely to be adequate for pavement construction, although the design of the pavement layers and any capping requirements will be dependent on conditions at time of construction and would be detrimentally impacted by wet weather.

4.5.21 The Far Bank End underpass is provided in this section at chainage 40 330m, providing accommodation for the farm track and Public Right of Way. Formation for this structure is likely to be in the weathered Penrith Sandstone. At chainage 40 410m, the existing New Hall Farm underpass will be decommissioned and in-filled.

4.5.22 From 41 000m to 41 750m (Sheet 3), the new route is formed in alternate nominal cutting and on nominal embankment. Cohesive glacial till is likely to be the formation material with properties taken from Table 4-63. The limited cutting depth and embankment height will be readily accommodated by the available material properties.

4.5.23 The proposed route is formed in shallow cutting from chainage 41 750m to 42 100m. The cutting runs through the mainline at the new Sandford Junction, which incorporates a new

underpass at chainage 41 920m. The cutting is likely to be formed in granular glacial till while the foundation level for the underpass may be formed in any of the primary geological units, given the interbedded sequence of cohesive and granular tills in this area. In either case, materials are expected to be workable, whether in the as-dug exposed condition, or if treatment is required. These are considered in the Earthworks Appraisal.

4.5.24 From chainage 42 100m to 42 900m (Sheet 4), the route will be formed on low embankment, at which point it diverges to the south, leaving the existing A66. Materials at formation are potentially granular or cohesive till, given the inter-bedded stratigraphy, but neither is likely to be a problem, with suitable properties taken from Table 4-62 and Table 4-63.

4.5.25 The offline section from chainage 42 900m to 43 600m (Sheet 5) is formed on a high embankment, up to 12m in height near Wheatsheaf Farm. An underpass to accommodate the farm access will be provided at chainage 43 100m. Irrespective of the materials at formation, the embankment materials themselves will need to be assessed for strength, stability and durability given the embankment height. It is also likely that internal settlements in the material will be relevant considerations in design and are reviewed in the Earthworks Appraisal. The geological section indicates that the embankment will be formed on a sequence of interbedded cohesive glacial till, granular glacial till, fluvio-glacial deposits and sand (weathered Penrith Sandstone). Cohesive layers appear to be less than 1.5m in thickness and have granular deposits above and below, suggesting that consolidation settlements can be accommodated with appropriate hold points and/or surcharge loading in future design considerations.

4.5.26 From chainage 43 700m to 44 700 (Sheets 6 and 7), the route is formed on new embankment parallel to and adjacent the existing A66 on its southern boundary. The Moor Beck River crossing carries the new route from chainage 43 870m on multiple spans. At chainage 44 375m, Warcop Village underbridge provides local access. The geological section indicates that the embankment will be formed on a sequence of interbedded cohesive glacial till, granular glacial till, fluvio-glacial deposits and sand (weathered Penrith Sandstone). Cohesive layers appear to be less than 2.0m in thickness and have granular deposits above and below, suggesting that consolidation settlements can be accommodated with appropriate hold points and/or surcharge loading in future design considerations. The embankment will be up to 11m in height and the same construction issues noted in the previous section will apply to the embankment materials and the settlement and strength characteristics of the ground.

4.5.27 The route will be formed in cutting up to 3m deep from chainage 44 700m to 45 000m. The cutting will be formed in cohesive glacial till. For a cutting of this depth no particular issues are envisaged and derived parameters in Table 4-63 will be appropriate.

4.5.28 From chainage 45 000m to 45 150m there is a short section of low embankment on the same cohesive till, with relevant parameters again available in Table 4-63.

4.5.29 The route continues in cutting up to 5m depth from chainage 45 150m to 45 600m (Sheet 8). The expected soil profile comprises cohesive and granular glacial till, although in this section the granular till is dominant and most likely to be found at formation level. For a cutting of this depth no particular issues are envisaged and derived parameters in Table 4-63 will be appropriate. Where granular glacial tills are present in the excavated cutting faces, relevant consideration should be given to drainage of potential short term seepages and potential erosion channels, prior to topsoiling and establishment of vegetation.

4.5.30 From chainage 45 600m to 46 100 (Sheet 9) the route is again on embankment, which is up to 4.5m in height. The soil profile comprises mainly granular glacial till, with lenses of sand and cohesive tills, the latter being less than 1m thick in general. It follows that the interbedded nature of the deposits will assist in consolidation settlement of the cohesive tills under the embankment loading. Consequent earthworks considerations should anticipate completion of consolidation within the construction period without special measures. The soil properties in Table 4-62 and Table 4-63 are applicable.

4.5.31 A short section of shallow cutting is proposed from chainage 46 100m to 46 300m (Sheet 9), formed in predominantly cohesive till, although granular till may also be present in the excavated faces. Either material may be present at formation, but strength, stability and pavement considerations will be accommodated readily by the soil properties in Table 4-62 and Table 4-63.

4.5.32 From chainage 46 300m to 46 700 (Sheet 9) the route is again on embankment, which is up to 5.0m in height. The soil profile comprises a mix of interbedded granular and cohesive glacial tills, with lenses of fluvio-glacial till and sand. Bedrock was not proven in this section although immediately east of the embankment, Penrith Sandstone was proven from a depth of 7.3m. It follows that the interbedded nature of the deposits will assist in consolidation settlement of the cohesive tills under the embankment loading. Consequent earthworks considerations should anticipate completion of consolidation within the construction period without special measures. In terms of strength and bearing, there are no obvious issues and the soil properties in Table 4-62, Table 4-63 and Table 4-64 are applicable.

4.5.33 A significant length of cutting is required from chainage 46 700m. This cutting is of the order of 5m to 6m depth and continues to the point where the new route merges with the existing A66 dual carriageway at Appleby, at scheme chainage 48 000m (Sheets 10 and 11).

4.5.34 At chainage 46 720m the Gatehouse Overbridge carries the local network road over the new route. Cohesive glacial till is likely to be present at the foundation level for a typical spread footing, or alternatively, bedrock of the Penrith Sandstone and Brockram Conglomerate is present from 8m below ground level, providing suitable bearing for piling if required. Table 4-63 and Table 4-65 provide indicative parameters for consideration in future design.

4.5.35 From 46 700m to 48 000m, the route is underlain by cohesive glacial till (Sheets 10 and 11). In situ tests suggest a degree of weathering in the upper horizon of the till, with relatively low SPT N values, indicative of low immediate (undrained) strength. Although proposed slopes of 1V:3H are unlikely to be problematic, consideration of earthworks season and subsequent slope vegetation could offer better control of bulk earthworks. Re-use of the material from the upper few metres will depend on in situ moisture content and again dry weather is likely to be a consideration in optimising the volume of suitable material while minimising the need for treatment such as addition of lime.

4.5.36 Where the formation level is in the upper weathered till horizon, pavement design must consider the likelihood of low surface stiffness and dig/replace and other capping requirements are likely to apply to pavement design. These aspects are considered in the Engineering Appraisal section.

4.5.37 Given the foregoing, the soil properties in Table 4-62, Table 4-63 and Table 4-64 are applicable.

4.5.38 At chainage 47 780m, West View Farm overbridge provides local access.

Groundwater

4.5.39 Groundwater was encountered as water strikes in a number of exploratory holes, although in general these were limited to granular materials and weathered rock/rockhead interfaces. Where encountered, these tended to be at depth and were rarely sub-Artesian, informing future design that standard approaches and measures are likely to be suitable and special relief wells or systems are not likely to be needed.

4.5.40 Water strikes in cohesive glacial tills were not reported in general, consistent with the low permeability of these materials. Occasionally, seepages were encountered. In the cohesive tills, such seepages are expected where water is locally perched, but such water is generally drained during the construction period. Where a “water table” (phreatic surface) is present in the till, this will be slowly drawn down to an equilibrium level over a number of years following completion of earthworks. The position of any phreatic surface will need to be considered in detailed design of cutting slopes in due course, particularly with regard to long term stability. However, particular problems with groundwater are not anticipated in the cohesive tills.

4.5.41 Between Temple Sowerby and Appleby, groundwater monitoring standpipes were installed in a number of exploratory hole locations and water levels were monitored during the fieldwork and for a period of 4 months following fieldwork, as reported in the 2021 GI. The following table lists the exploratory holes with such installations and the minimum and maximum reported groundwater levels, relative to ground level at the location of the installation.

Table 4-66 : Temple Sowerby to Appleby - Groundwater

Exploratory Hole	Response Zone of Installation (mbegl) Note 1	Highest Groundwater Level (mbegl)	Lowest Groundwater Level (mbegl)
BH KTB003	1.00 – 3.70	3.57	DRY **Note 2**
BH KTB005	4.00 – 5.50	DRY	DRY
BH KTB007A	1.00 – 5.00	2.97	3.34
BH KTB010	5.00 – 8.00	0.18	0.85
BH KTB013	1.50 – 9.50	1.99	2.20
BH KTB016A	3.20 – 7.20	7.21	DRY
BH KTB018	1.00 – 5.00	1.21	4.84
BH KTB019	12.00 – 15.00	14.56	DRY
BH KTB023 mining	13.00 – 35.00	16.77	34.14
BH KTB024	1.00 – 7.50	2.27	4.44
BH KTB025	1.00 – 11.50	1.94	2.07
BH KTB028	5.50 – 9.50	9.20	DRY
BH KTA004	6.30 – 8.80	8.46	DRY
BH KTA015	5.00 – 8.00	0.87	1.23
BH KTA018	9.00 – 16.00	7.22	9.15
BH KTA021	1.00 – 3.60	2.33	3.36
BH KTA022	2.00 – 7.00	2.47	2.75

Notes:
1. mbegl – metres below existing ground level
2. DRY denotes that groundwater was not present in the standpipe response zone, indicating that highest possible groundwater level was below the response zone at that time.

4.5.42 The monitoring results in Table 4-66 indicate that the groundwater levels are generally at depth and present limited impact on the proposed earthworks. Usual considerations with regard to groundwater management during construction, including temporary works for structures, are likely to be suitable without special measures. Results in BH KTB010, BH KTA015 and BH KTA018 suggest locally high or potentially sub-Artesian water pressure.

4.5.43 At BH KTB010, the proposed route is at-grade or nominally in cutting. The sub-Artesian pressure appears to be in the Penrith Sandstone at some 5m below ground level. As such this water is unlikely to affect general earthworks, but will dictate requirements for temporary works at the Cross Street overbridge. If piling is considered, measures to address the pressure will need to be investigated to control excess head during boring and forming piles.

4.5.44 At BH KTA015 the proposed route is in deep cutting in cohesive glacial till. If the groundwater level is a true phreatic surface at approximately 1m below ground level, then significant drainage will need consideration during construction. Given that there were no water strikes during boring, it may be the case that the installation is not truly sealed and allowing water to accumulate from ground level. The very low permeability of the glacial till then effectively trapped this water and its level only drops very slowly as it does eventually soak away. Further investigation of the true ground water regime in this cutting is recommended. At BH KTA018 a similar explanation is likely, given low permeability glacial till throughout the bore and no recorded water strikes during drilling. Further investigation is recommended to verify this assumption.

4.5.45 Between Appleby and Brough, groundwater monitoring standpipes were installed in a number of exploratory hole locations and water levels were monitored both during and after the fieldwork period, as reported in the 2021 GI. The following table lists the exploratory holes with such installations and the minimum and maximum reported groundwater levels, relative to ground level at the location of the installation.

Table 4-67 : Appleby to Brough - Groundwater

Exploratory Hole	Response Zone of Installation (mbegl) Note 1	Highest Groundwater Level (mbegl)	Lowest Groundwater Level (mbegl)
BH AB001	9.50 – 13.00	5.20	5.37
BH AB008 (1)	9.00 – 12.00	4.56	11.03
BH AB008 (2)	3.00 – 4.00	0.96	1.46
BH AB009 (1)	2.00 – 10.00	3.00	3.14
BH AB009 (2)	12.50 – 25.00	8.49	8.58
BH AB010 (1)	1.00 -8.50	1.62	2.00
BH AB010 (2)	10.00 – 25.00	11.52	11.77
BH AB011	1.00 – 10.00	1.21	1.58
BH AB020	2.00 – 7.00	3.01	DRY
BH AB021	3.00 – 5.00	4.39	4.62
BH AB025	1.70 – 3.30	0.92	1.20
BH AB026	1.50 – 4.50	0.37	0.56
BH AB027	14.00 – 20.00	1.39	1.45
BH AB028	2.00 – 9.00	2.40	2.74
BH AB030	0.75 – 5.50	4.89	5.55
BH AB031	1.00 – 4.00	2.96	3.59
BH AB032	1.00 – 6.00	2.36	3.12
BH AB033	1.00 – 8.00	4.46	4.62
BH AB034	3.00 – 4.00	3.85	3.91
BH AB042	10.50 – 15.00	6.91	7.32
BH AB043	7.50 – 18.50	11.50	11.76
BH AB044	1.00 – 7.50	0.90	1.31
BH AB045	1.00 – 5.00	1.22	2.06

Notes:
1. mbegl – metres below existing ground level
2. DRY denotes that groundwater was not present in the standpipe response zone, indicating that highest possible groundwater level was below the response zone at that time.

4.5.46 The monitoring results in Table 4-67 indicate that the groundwater levels are generally at depth and present limited impact on the proposed earthworks. Usual considerations with regard to groundwater management during construction, including temporary works for structures, are likely to be suitable without special measures. Results in BH AB008(2), BH AB025, BH AB026, BH AB044 and BH AB045 suggest locally high or potentially sub-Artesian water pressure.

4.5.47 At BH AB008(2) in the vicinity of Sandford Underbridge, groundwater appears to exhibit sub-Artesian behaviour, with a response zone between 3m and 4m below ground level and water levels rising to 1m to 1.5m below ground level. Given the route is in cutting on the mainline and in the cutting to form the approaches to Sandford Underbridge, it is possible that there will be groundwater difficulties during construction and further investigation of the ground water regime in this area is recommended.

4.5.48 At BH AB025 and BH AB026, the route will be on embankment. Although the apparently sub-Artesian water pressure in the fluvio-glacial till can be problematic, the formation level of the

road is likely to be above the potential water level, should the confinement to the saturated layer be disrupted. Consideration should be given in the Engineering Assessment to likely requirements for measures such as coarse starter layers below the embankment.

4.5.49 At BH AB044 and BH AB045, high groundwater is indicated, in the range 1m to 2m below ground level. The route is in relatively deep cutting below this potential groundwater level. Given there were no water strikes in BH AB044 and only a seepage in BH AB045 during drilling, it is not thought that the monitoring levels represent a phreatic surface and are more likely to be inflows into the installation from surface that subsequently drain very slowly. Further investigation of the true ground water regime in this cutting is recommended.

SUDS Ponds

4.5.50 Drainage design on the proposed scheme from Temple Sowerby to Brough uses sustainable drainage design principles. These require attenuation of flows arising from collection of surface run-off from the new road. In order to protect existing water-courses, the flows will be collected in a number of ponds, sited along the route. At time of writing, locations have been chosen, but the nature of the design process means that these can change in future. Given this, a generic assessment can be made in relation to the ground model applicable to pond sites.

4.5.51 Current pond locations are given in the table below.

Table 4-68 : SUDS Pond Locations

Sheet	Chainage And Position Relative to Mainline	Exploratory Holes	Expected Material	Soakaway Potential
Temple Sowerby to Appleby				
1	None	-	-	-
2	30 800m North	TP KTB004	Granular glacial till	Low
	31 500m South	TP KTB008	Cohesive glacial till	Very low
3	31 700m North	BH KTB009	Cohesive glacial till	Very low
4	32 800m West	TP KTB014	Cohesive glacial till	Very low
	33 200m East	TP KTB018	Cohesive glacial till	Very low
5	33 400m East	None	Not confirmed	Not confirmed
	33 800m West	None	Not confirmed	Not confirmed
6	34 500m West	None	Not confirmed	Not confirmed
	34 900m East	TP KTA002	Cohesive glacial till	Very low
7	None	-	-	-
8	36 450m North	TPKTA012	Cohesive glacial till	Very low
9	None	-	-	-
10	37 900m South	TP KTA018		
11	38 300m South	None	Not confirmed	Not confirmed
Appleby to Brough				
1	None	-	-	-
2	41 150m South	TP AB005/5A	Glacial till (Potentially cohesive and granular layers)	Very low
3	42 050m South	TP AB007	Granular glacial till	Low
	42 150m South Upper	TP AB019	Glacial till (Potentially cohesive and granular layers)	Very low

Sheet	Chainage And Position Relative to Mainline	Exploratory Holes	Expected Material	Soakaway Potential
	42 150m South Lower	TP AB015	Glacial till (Potentially cohesive and granular layers)	Very low
4	42 300m South	TP AB020	Granular glacial till	Low
5	43 500m South	TP AB022	Glacial till (Potentially cohesive and granular layers)	Very low
6	44 400m South	TP AB029	Granular glacial till	Low
7	44 530m South	TP AB027	Glacial till (Potentially cohesive and granular layers)	Very low
	44 640m South	TP AB038	Granular glacial till	Low
8	45 650m South	TP AB039	Granular glacial till	Low
	45 850m South	TP AB040	Cohesive glacial till	Very low
9	46 050m South	TP AB045	Cohesive glacial till	Very low
	46 500m South	TP AB052	Cohesive glacial till	Very low
10	47 250m South	TP AB057	Cohesive glacial till	Very low
11	47 950m South	None	Not confirmed	Not confirmed
	48 000m South	None	Not confirmed	Not confirmed

4.5.52 Where pond locations are underlain by the granular glacial tills or fluvioglacial deposits, there is potential for flows from SUDS ponds into the surrounding ground (soakaway). Permeability of these deposits is sufficiently high to make this viable, of the order of 1 x 10^{-6}m/s.

4.5.53 Similarly, ponds which encounter the weathered rock (sand) or intact rock (sandstone/conglomerate) will be expected to drain into the ground, with a similar permeability to the granular tills, if not an order of magnitude higher around 1 x 10^{-5}m/s.

4.5.54 Pond locations in the cohesive tills will not offer the possibility of soakaway, as these tills are effectively impermeable. Design will therefore need to consider capacity in assessment of collection of flows and attenuation times prior to discharge to watercourses.

4.5.55 Material excavated from the ponds will be suitable for re-use as engineering fill, to differing degrees, again dependent on whether cohesive or granular tills, weathered rock (sand) or intact rock (Sandstone/conglomerate). These aspects are considered in the Engineering Assessment.

4.5.56 The foregoing sections provide the geotechnical summary of the ground below the route footprint from Temple Sowerby to Brough. This should be read in conjunction with the following geo-environmental models. These provide a review of the geo-chemical testing of the various material deposits to assess the risks of contamination and whether specific mitigation measures or controls are likely to require consideration in detailed design stages in future.

5 Temple Sowerby to Appleby – Kirkby Thore Scheme Geo-Environmental Model

5.1 Introductory Information

5.1.1 Geo-environmental testing of soil and water samples recovered during the ground investigation was undertaken to enable preliminary human health and controlled waters assessments to quantify the contamination risk potential within the boundary of the scheme and to assess soils re-use potential and suitable waste disposal routes for surplus soils.

5.1.2 This section summarises the geo-environmental testing of made ground and natural strata encountered along the scheme as well as testing of groundwater and surface water samples. The analysis of this data enables a preliminary assessment of the risks posed to human health and controlled waters by comparing the test results against screening values to provide an indication of relative levels of contamination present along the scheme. This approach is consistent with Stage 1 of the Environment Agency's Land Contamination Risk Management (LCRM) (28). This review also includes waste hazard classification of the samples analysed, and a discussion on potential waste disposal routes.

5.1.3 An assessment of the potential contamination sources on site was carried out within National Highways' A66 Northern Trans-Pennine Project (NTP) Preliminary Sources Study Report (PSSR) (29). This study was augmented by a review of the site history within the Chapter 9 (Geology and Soils) of the Preliminary Environmental Impact (PEI) Report (30).

5.2 Visual and Olfactory Evidence of Contamination

5.2.1 No visual or olfactory evidence of contamination was recorded on the borehole or trial pit logs for the samples taken on site.

5.3 Chemical Testing Overview

5.3.1 The strategy for chemical testing was developed based upon consideration of the preliminary conceptual site model presented in the Technical Appraisal Report (31), PSSR (29) and PEI report (30) and the materials encountered during the ground investigation. Soil and water samples selected by the A66 NTP Integrated Project Team were sent to Envirolab under a subcontract arrangement with the GI contractor Structural Soils Ltd. (SSL) for selected chemical analysis. The testing carried out on soil and water samples is summarised in Section 5.4 to Section 5.7 below.

5.3.2 A full description of analytical suites and limits of detection are presented in Appendix D.2.

5.4 Chemical Testing – Soils

5.4.1 A total of 106 soil samples (comprising 33 from Topsoil, 10 from Made Ground, and 63 from natural superficial deposits) from exploratory hole locations relevant to Temple Sowerby to Appleby (Kirkby Thore) were tested for a range of chemical determinands likely to be encountered on the site as a result of its current and historical land use and geological setting.

5.4.2 The locations of the soil sampling locations are presented in Drawings HE565627-AMY-HGT-S0405-DR-CE-000123 and HE565627-AMY-HGT-S0405-DR-CE-000124, (Appendix A.4). A summary of soil chemical testing undertaken is presented in Table 5-1.

5.4.3 The samples tested were taken from depths ranging from 0.10 m bgl to 3.50 m bgl and from the range of soil types encountered in the exploratory locations. A catalogue of soil samples subjected to chemical testing is contained in Appendix D.2

5.4.4 Soil chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32). (Appendix E)

Table 5-1 : KTB – Summary of Chemical Testing in Soil Samples

No of Samples	Description	Notes
106	Suite E1a – Primary metals and metalloids	Comprises Arsenic, Boron (Water soluble), Cadmium, Chromium (total), Chromium (trivalent), Chromium (hexavalent), Copper, Lead, Mercury, Nickel, Selenium and Zinc.
100	Suite E1b – Secondary metals and metalloids	Comprises Antimony, Barium, Beryllium, Molybdenum and Vanadium
101	Suite E2 – Inorganics	Comprises pH, Soil Organic Matter, Total Organic Carbon, Sulphate, Sulphide, and loss on ignition.
59	Suite E3 – CN/Phenol	Comprises Cyanide (free) and Phenols (total).
41	Suite E4a – Asbestos	Asbestos Presence and ID
106	Suite E6a – TPH CWG	TPH CWG
106	Suite E7a – Speciated PAHs	USEPA 16 PAHS
0	Suite E9 – SVOCs and VOCs	Semi Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs)

5.5 Chemical Testing – Leachate

5.5.1 A total of 38 soil samples from exploratory hole locations were subject to leachate preparation to ascertain the mobility of substances in the soil. Leachate extraction was undertaken as part of the Waste Acceptance Criteria (WAC) preparation method.

5.5.2 The locations of the leachate / WAC analysis locations are presented in Drawings HE565627-AMY-HGT-S0405-DR-CE-000112 and HE565627-AMY-HGT-S0405-DR-CE-000113, (Appendix A.3A.4). A catalogue of WAC samples scheduled for analysis is contained in Appendix D.2.

5.5.3 The samples tested were taken from depths ranging from 0.10m bgl to 3.50 m bgl and from the range of soil types encountered in the exploratory locations.

5.5.4 Samples selected to undergo Waste Acceptance Criteria (WAC) analysis were subject to leachate preparation using method BS EN 12457-3 which involves a 2-stage leaching process (a moisture corrected 2:1 liquid to solid ratio leaching step for 6 hours followed by a moisture corrected 8:1 liquid to solid ratio leaching step on the remaining material for 18 hours). The combined results from which are calculated to provide analytical data reported as mg/kg dry weight at 10:1.

5.5.5 The Environment Agency Remedial Targets Methodology (33) report states that pore water concentrations determined for samples with a 2:1 liquid/solid ratio are preferable for risk assessment purposes with the 10:1 liquid/solid ratio leachate is preferred for waste characterisation.

5.5.6 Leachate chemical analysis results (undertaken during WAC extraction) are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E) and summary of the leachate analysis undertaken is presented in Table 5-2 below.

Table 5-2 : KTB – Summary of Chemical Testing in Leachate Samples

No of Samples	Description	Notes
38	pH	2:1 liquid/solid ratio
38	Electrical Conductivity / Total Dissolved Solids / Chloride / Fluoride / Sulphate / DOC	
38	Metals (Antimony, Arsenic, Barium, Cadmium, Copper, Chromium, lead, Mercury, Molybdenum, Nickel, Selenium, Zinc)	
38	Phenols	

5.6 Chemical Testing – Groundwater

5.6.1 Groundwater sampling was attempted in all 12 groundwater monitoring wells installed in boreholes sunk during the Temple Sowerby to Appleby (Kirkby Thore) ground investigation, however groundwater samples were only able to be recovered from five of the 12 monitoring as the remaining wells contained insufficient water to sample.

5.6.2 The locations of the monitoring wells are presented in Drawings HE565627-AMY-HGT-S0405-DR-CE-000118 and HE565627-AMY-HGT-S0405-DR-CE-000119, (Appendix A.3A.4) and a summary of the installed and sampled boreholes are presented in Table 5-3 and Table 5-4.

5.6.3 Groundwater monitoring wells were on the first of four groundwater monitoring rounds (26th, 27th of May and 1st of June 2021). One "low flow" groundwater sampling round was carried out on the second of four monitoring rounds on 8th June 2021. The remaining three rounds comprised groundwater level and gas monitoring only.

Table 5-3 : KTB – Sampled Groundwater Installations

Expl. Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH KTB007A	1.00 – 5.00	Cohesive Glacial Till	Sampled
BH KTB010	5.00 – 8.00	Weathered Sandstone	Sampled
BH KTB013	1.50 – 9.50	Cohesive Glacial Till	Sampled
BH KTB024	1.00 – 7.50	Cohesive and Granular Glacial Till and Fluvioglacial deposits	Sampled
BH KTB025	1.00 – 11.50	Cohesive and Granular Glacial Till	Sampled

Table 5-4 : KTB – Groundwater Installations without groundwater sampling

Expl. Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH KTB003	1.00 – 3.70	Cohesive Glacial Till and possible weathered Sandstone	Insufficient groundwater for sampling
BH KTB005	4.00 – 5.50	Weathered Sandstone	
BH KTB016A	3.20 – 7.20	Weathered Sandstone	
BH KTB018	1.00 – 5.00	Granular Glacial Till and possible weathered Sandstone	
BH KTB019	12.00 – 15.00	Bedrock	
BH KTB023	13.00 – 35.00	Cohesive Glacial Till and Sandstone	
BH KTB028	5.50 – 9.50	Bedrock	

5.6.4 All groundwater were subjected to a full suite of chemical analysis as presented in Table 5-5 below.

5.6.5 Groundwater chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

Table 5-5 : KTB – Summary of Chemical Testing in Groundwater Samples

No of Samples	Description	Notes
5	Suite F1a – Metals and metalloids	Comprises pH, Arsenic, Cadmium, Chromium (III and IV), Copper, Iron, Lead, Mercury, Nickel, Selenium, Zinc, Calcium, Hardness, Alkalinity as $CaCO_3$
5	Suite F1b – Secondary metals and metalloids	Comprises Boron, Magnesium, Manganese, Molybdenum and Vanadium
5	Suite F2 – Major ions	Comprises Sulphate, Chloride, Nitrate, Sulphide, Nitrite, Sodium and Potassium
5	Suite F3 – Ammoniacal nitrogen	Ammoniacal Nitrogen
5	Suite F4 – Electrical conductivity	Electrical conductivity
5	Suite F5 – Total suspended solids	Total Suspended Soils
0	Suite F6 – Oxygen demand	Comprises biological oxygen demand and chemical oxygen demand
5	Suite F7a – TPH CWG	TPH CWG
5	Suite F8 – Speciated PAHs	PAHs (USEPA 16)

5.7 Chemical Testing – Surface Water

5.7.1 No significant surface waters are located in close proximity to the GI locations sunk to investigate the KTB scheme during this phase of investigation. Whilst the Trout Beck broadly defines the eastern extent of the KTB scheme, land access constraints prevented surface water samples from being obtained and consequently no surface water samples were taken during this phase of investigation of the Temple Sowerby to Appleby (Kirkby Thore) Ground Investigation.

5.8 Groundwater and Ground Gas Monitoring

5.8.1 Gas and groundwater levels were recorded at weekly intervals on four occasions, undertaken between 26th May 2021 and 23rd June 2021.

5.8.2 The Monitoring and Post Fieldwork Environmental Sampling Methodology is set out in Section 3.5 of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

5.8.3 The results of the groundwater and ground gas monitoring, together with the temporal (weather) conditions are tabulated in Appendix F (Monitoring) of the Ground Investigation Contractor's Factual Report (32). (Appendix E)

5.8.4 The ground gas monitoring results are summarised in Table 5-6

Table 5-6 : KTB – Groundwater & Ground Gas Monitoring Summary

Expl. Hole	Methane Conc. % v/v	CO2 Conc. % v/v	O2. Conc. % v/v	Flow (l/h)	Response Zone (m bgl)	Strata	Water Level (m bgl)
BH KTB003	0.0	0.1 – 6.0	15.4 – 20.9	0.0	1.00 – 3.70	Superficial and Bedrock	3.57
BH KTB005	0.0	0.1 – 0.5	20.2 – 21.2	0.0	4.00 – 5.50	Bedrock	DRY
BH KTB007A	0.0	0.1 – 1.3	18.8 – 20.9	-0.1	1.00 – 5.00	Superficial	2.97 – 3.34
BH KTB010	0.0 – 6.7	0.1 – 4.6	10.7 – 20.9	-0.7	5.00 – 8.00	Bedrock	0.18 – 0.85
BH KTB013	0.0 – 0.2	0.1 – 3.8	15.5 – 21.3	+0.2	1.50 – 9.50	Superficial	1.99 – 2.20
BH KTB016A	0.0	0.1 – 0.3	15.3 – 20.9	-2.0	3.20 – 7.20	Bedrock	7.19 – 7.21
BH KTB018	0.0	0.1 – 7.9	15.1 – 20.6	+0.1	1.00 – 5.00	Superficial and Bedrock	1.21 – 4.82
BH KTB019	0.0	0.1 – 3.1	15.4 – 20.1	-5.4	12.00 – 15.00	Bedrock	14.56 – 14.87
BH KTB023	0.0	0.1 – 3.0	0.0 – 20.1	+2.4 to +8.5	13.00 – 35.00	Superficial and Bedrock	16.77 – 34.14
BH KTB024	0.0	0.2 – 2.6	6.7 – 20.9	-4.5 to +5.2	1.00 – 7.50	Superficial	2.27 – 4.44
BH KTB025	0.0	0.1 – 6.3	10.3 – 20.9	-0.1	1.00 – 11.50	Superficial	1.94 – 2.07
BH KTB028	0.0	0.0 – 0.3	12.9 – 21.2	-0.9	5.50 – 9.50	Bedrock	9.20

5.8.5 In BH KTB010 the response zone was flooded with groundwater and therefore the results of the gas monitoring is considered to be unreliable due to this and results should be treated with caution.

5.9 Human Health Assessment – Site End Users

5.9.1 Key potential sources of contamination have been identified and discussed in the PSSR (29) and PEI Report (30). To enable a preliminary human health risk assessment, suitable Generic Assessment Criteria (GAC) have been selected for comparison with the chemical test results obtained from soil samples.

5.9.2 The Human Health Risk Assessment (HHRA) risk assessment methodology is outlined in Appendix D.1

5.9.3 Soil Samples have been screened against Generic Assessment Criteria (GAC) selected from the following strict hierarchy:

- Category 4 Screening Levels (C4SLs) as coordinated by CL:AIRE on behalf of the Department for Environment, Food and Rural Affairs (34) (35);
- LQM/CIEH Suitable 4 Use Levels (S4UL) (36) where published C4SLs are not available; or
- Atkins ATRISKsoil Soil Screening Values (SSVs) (37).

5.9.4 Following a review of default land use scenarios underpinning these models, the "Public Open Space – Park" (POS_{Park}) land use, utilising 1% Soil Organic Matter (SOM) has been selected for use on this project as it is considered to be suitably precautionary for the proposed land use under consideration (i.e. major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SuDS ponds etc) with regards to selection of critical receptor and behavioural exposure parameters.

5.9.5 The full analytical results addressed in this report are presented in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

5.9.6 The screening of results is presented in Appendix D.3.1. None of the test results exceeded the screening criteria.

5.10 Human Health Assessment – Construction and Maintenance Workers

5.10.1 The study area comprises a major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SUDs ponds etc, and it is unlikely the public will access to the land along the scheme on a routine basis post development.

5.10.2 Therefore, the preliminary human health assessment is primarily aimed at identifying significant contamination issues that may impact the scheme design or affect project personnel who will perform the infrastructure upgrade works and subsequent maintenance.

5.10.3 Construction and maintenance workers are more likely to be at risk from acute (short term, high dose) exposure to contaminants within the soils during periods of episodic occupational exposure.

5.10.4 Generic Assessment Criteria (GAC) are for the most part (with the exception of cyanide) protective of chronic (i.e. long term, low dose) exposure rather than the effects of acute exposure. In general, GACs which are protective of chronic exposure are orders of magnitude lower than those which are protective of acute exposure.

5.10.5 The results of the chronic exposure assessment undertaken within Section 5.8.5 above are considered to be conservative when assessing risks posed to construction and maintenance workers on a site in an occupational exposure setting.

5.10.6 There were no exceedances of the GAC recorded in Section 5.9; however, consideration should be given to managing unexpected contamination in further ground investigation or construction works.

5.11 Asbestos Assessment

5.11.1 39 soil samples were screened for asbestos containing materials (presence and identification and quantification) as part of the laboratory assessment. Visual observations on site were also considered.

5.11.2 No asbestos was detected within any samples examined in the laboratory or observed during ground investigation works.

5.12 Controlled Waters Risk Assessment – Tier 1 Assessment

5.12.1 The controlled waters risk assessment (CWRA) should be considered informative, in so much as it presents an evaluation of baseline conditions of the chemistry of leachate, groundwater and surface water samples encountered at discrete locations along the scheme prior to construction works commencing that may inform future designs.

5.12.2 43 samples (comprising 38 no. leachate, and 5 no. groundwater samples) which were recovered and analysed in the course of the Ground Investigation have been assessed to identify potential risks to groundwater resources underlying the study area and to surface waters in the vicinity of the site.

5.12.3 The Controlled Waters Risk Assessment (CWRA) has been undertaken with an initial precautionary Tier 1 assessment. The CWRA Methodology is set out in Appendix D.1.

5.12.4 The Tier 1 CWRA has been undertaken comparing the observed concentration against the lowest of available relevant Water Quality Standards (WQS) (i.e. Drinking Water Standards (DWS) or Environmental Quality Standards (EQS).

5.12.5 The results of the Tier 1 (T1) Controlled Waters Risk Assessment screen are presented in Appendix D.3.2.

5.12.6 Of the 43 leachate and groundwater samples which underwent the T1 WQS assessment, one leachate sample (TP KTB024 at 2.0m) passed the conservative T1 WQS assessment.

5.12.7 T1 WQS exceedances were identified for pH, ammoniacal nitrogen, nitrate, nitrite, copper, lead, manganese, molybdenum and zinc in 42 samples (comprising 37 leachate and 5 groundwater samples) and therefore it was necessary to undertake a more detailed Tier 2 assessment of the water results.

5.12.8 In accordance with the Controlled Waters Risk Assessment Methodology" set out in Appendix D.1 samples where T1 WQS exceedances have been identified undergo review to determine whether it is possible to exclude the DWS or EQS receptors from the T1 assessment (e.g. due to sample type / proximity to surface water etc). If it is possible to exclude the DWS or EQS receptor, the T1 exceedances can progress to a more relevant T2 (DWS) or T2 (EQS) assessment.

5.12.9 The sample specific Tier 2 Assessment Point WQS evaluation can be found in Appendix D.3.3. This identifies locations where Tier 1 WQS exceedances were recorded and whether it is possible to consider further Tier 2 CWRA.

5.12.10 All 42 samples (comprising 37 no. leachate, and 5 no. groundwater samples) which recorded exceedances of the T1 WQS were able to advance to a T2 DWS assessment. No samples required T2 EQS assessment.

5.13 Controlled Waters Risk Assessment – Tier 2 Groundwater Resource Protection

5.13.1 The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point. (e.g. a groundwater sample, distal to a surface water receptor would be assessed against Drinking Water Standards (DWS) only to protect groundwater drinking water resources.

5.13.2 The results of the Tier 2 Groundwater Resource Protection (T2 DWS) CWRA are presented in Appendix D.3.4. Failures of T2 DWS are summarised in Table 5-7.

Table 5-7 : KTB – Summary of T2 DWS Exceedances

Contaminant of Concern	T2 DWS WQS	Result	Sample Location
pH	pH 6.5 – 9.5	pH 6.2	TP KTB002, 1.2m (leachate)

Contaminant of Concern	T2 DWS WQS	Result	Sample Location
		pH 6.3	TP KTB006, 0.2m (leachate)
		pH 6.24	TP KTB007, 0.6m (leachate)
		pH 6.0	TP KTB018, 0.2m (leachate)
		pH 5.6	TP KTB022, 0.2m (leachate)
		pH 5.9	BH KTB005, 1.5m (leachate)
		pH 6.4	BH KTB009, 1.0m (leachate)
		pH 5.2	BH KTB011, 0.1m (leachate)
		pH 6.2	BH KTB013, 0.5m (leachate)
		pH 6.1	BH KTB018, 1.2m (leachate)
		pH 6.2	BH KTB021, 0.2m (leachate)
		pH 6.0	BH KTB023, 0.2m (leachate)
Nitrite	0.2 mg/l	2.2 mg/l	BH KTB010 (groundwater)
Nitrate	50 mg/l	89.2 mg/l	BH KTB010 (groundwater)
		65.2 mg/l	BH KTB013 (groundwater)
		51.4 mg/l	BH KTB024 (groundwater)
Arsenic	10 µg/l	12 µg/l	BH KTB020, 0.5m (leachate)
Manganese (dissolved)	50 mg/l	300 mg/l	BH KTB007A (groundwater)
		91 mg/l	BH KTB010 (groundwater)
		1480 mg/l	BH KTB024 (groundwater)
Lead	10 µg/l	14 µg/l	TP KTB001, 0.7m (leachate)
		25 µg/l	TP KTB003, 0.2m (leachate)
		19 µg/l	TP KTB006, 0.2m (leachate)
		15 µg/l	TP KTB008, 0.2m (leachate)
		31 µg/l	TP KTB009, 0.4m (leachate)
		23 µg/l	TP KTB013, 0.2m (leachate)
		11 µg/l	TP KTB018, 0.2m (leachate)
		16 µg/l	TP KTB022, 0.2m (leachate)
		28 µg/l	BH KTB001. 0.5m (leachate)
		83 µg/l	BH KTB008, 0.4m (leachate)
		12 µg/l	BH KTB009, 1.0m (leachate)
		19 µg/l	BH KTB011, 0.1m (leachate)
		26 µg/l	BH KTB012, 0.1m (leachate)
		30 µg/l	BH KTB013, 0.5m (leachate)
		27 µg/l	BH KTB018, 1.2m (leachate)
		40 µg/l	BH KTB020, 0.5m (leachate)
		46 µg/l	BH KTB021, 0.2m (leachate)

Contaminant of Concern	T2 DWS WQS	Result	Sample Location
		15 µg/l	BH KTB022, 0.5m (leachate)

5.13.3 T2 DWS Exceedances for lead were recorded in 18 of the 37 leachate samples, and one exceedance was recorded for arsenic. The concentration of lead and arsenic being released naturally is likely to be lower – this is confirmed by the absence of lead in groundwater samples from the same locations (e.g., BH KTB013, Pb <1 µg/l) being a location with both leachate and groundwater samples).

5.13.4 The widespread T2 DWS exceedances of lead within leachate samples has been recorded. The reason for this has not been established, however it has been speculated this may be as a result of naturally elevated background levels resulting from regional bedrock mineralisation.

5.14 Controlled Waters Risk Assessment – Tier 2 Surface Water Assessment

5.14.1 As discussed in Section 5.7 and the WQS Evaluation Table in Appendix D.3.3, no significant surface waters are located in close proximity to the GI locations sunk to investigate the KTB scheme during this phase of investigation. Whilst the Trout Beck broadly defines the eastern extent of the KTB scheme, land access constraints prevented surface water samples from being obtained and consequently no surface water samples were taken during this phase of investigation of the Temple Sowerby to Appleby (Kirkby Thore) Ground Investigation.

5.14.2 The Tier 2 surface water assessment has not been considered further.

5.15 Re-use of Soils

5.15.1 Introducing a soil material re-use strategy will be consistent with National Highways' commitment to incorporate sustainable methods into the design of projects as outlined in GG103 (Introduction and general requirements for sustainable development and design, 2019). The re-use of soil materials within the scheme will reduce quantities of material destined for landfill, waste generation, unnecessary costs, and unnecessary journeys.

5.15.2 In addition, the requirement to import fill materials (and associated costs) may also be reduced. This will assist with meeting National Highways' environmental sustainability goals, including minimising greenhouse gas emissions, reducing waste generation, using sustainably sourced materials, and being resource efficient and reflecting a circular approach to the use of materials.

5.15.3 Prior to excavations and re-use of the material, an appropriate re-use methodology and Materials Management Plan, and associated Verification Plan document, should be completed to enable the re-use of the material. The Verification Plan should identify how the placement of materials is to be recorded and the quantity of materials to be used, including a

statement on how the use of the materials relates to the highway design. Verification testing results should be compared to re-usability criteria from a corresponding Series 600 Earthworks Specification and Verification Plan.

5.16 Waste Classification

5.16.1 A preliminary waste classification exercise has been undertaken in line with the guidance set out in the Environment Agency: Guidance on the Classification and Assessment of Waste Technical Guidance WM3 document (38) using the results obtained from the ground investigations to determine the likely waste classification of soils within the scheme and provide a likely List of Waste (LoW) code in the event they require to be discarded as a waste.

5.16.2 The Waste Assessment methodology is outlined in Appendix D.1, Soil quality data from the ground investigation was entered into the HazWasteOnline™ (39) hazard assessment tool.

5.16.3 A total of 106 soil samples (comprising 33 from Topsoil, 10 from Made Ground, and 63 from natural superficial deposits) have been assessed using the HazWasteOnline™ tool.

5.16.4 All soil samples were classified as “Non-Hazardous”.

5.16.5 The results of the HazWasteOnline™ assessment are contained in the report outputs presented in Appendix D.6.

6 Temple Sowerby to Appleby – Crackenthorpe Geo-environmental Model

6.1 Introductory Information

6.1.1 Geo-environmental testing of soil and water samples recovered during the ground investigation was undertaken to enable preliminary human health and controlled waters assessments to quantify the contamination risk potential within the boundary of the scheme and to assess soils re-use potential and suitable waste disposal routes for surplus soils.

6.1.2 This section summarises the geo-environmental testing of made ground and natural strata encountered along the scheme as well as testing of groundwater and surface water samples. The analysis of this data enables a preliminary assessment of the risks posed to human health and controlled waters by comparing the test results against screening values to provide an indication of relative levels of contamination present along the scheme. This approach is consistent with Stage 1 of the Environment Agency's Land Contamination Risk Management (LCRM). This review also includes waste hazard classification of the samples analysed, and a discussion on potential waste disposal routes.

6.1.3 An assessment of the potential contamination sources on site was carried out within National Highways' A66 Northern Trans-Pennine Project (NTP) Preliminary Sources Study Report (PSSR) (29). This study was augmented by a review of the site history within the Chapter 9 (Geology and Soils) of the Preliminary Environmental Impact (PEI) Report (30).

6.2 Visual and Olfactory Evidence of Contamination

6.2.1 Visual and olfactory evidence of contamination during the ground investigation predominantly comprised some coal fragments observed in shallow superficial deposits. The observations are summarised in Table 6-1, below

Table 6-1 : KTA – Visual and Olfactory Evidence of Contamination

Exploratory Hole No	Observation	Depth (m bgl)	Strata	Description
TP KTA004	Visual	1.00	Topsoil/Made Ground	Coal fragments observed
TP KTA005	Visual	0.50	Topsoil/Made Ground	Coal fragments observed
TP KTA008	Visual	0.1	Made Ground	Ballast and clinker observed

6.3 Chemical Testing Overview

6.3.1 The strategy for chemical testing was developed based upon consideration of the preliminary conceptual site model presented in the Technical Appraisal Report (31), PSSR (29) and PEI Report (30) and the materials encountered during the ground investigation. Soil and water samples selected by the A66 NTP Integrated Project Team were sent to Envirolab under a

subcontract arrangement with the GI contractor Structural Soils Ltd. (SSL) for selected chemical analysis. The testing carried out on soil and water samples are summarised in Section 6.4 to Section 6.7 below.

6.3.2 A full description of analytical suites and limits of detection are presented in Appendix D.2.

6.4 Chemical Testing – Soils

6.4.1 A total of 83 soil samples (comprising 20 from Topsoil, 19 from Made Ground, and 44 from natural superficial deposits) from exploratory hole locations relevant to Temple Sowerby to Appleby (Crackenthorpe) were tested for a range of chemical determinands likely to be encountered on the site as a result of its current and historical land use and geological setting.

6.4.2 The locations of the soil sampling locations are presented in Drawings HE565627-AMY-HGT-S0405-DR-CE-000125 to HE565627-AMY-HGT-S0405-DR-CE-000127, (AppendixA.3). A summary of soil chemical testing undertaken is presented in Table 6-2.

6.4.3 The samples tested were taken from depths ranging from 0.10 m bgl to 3.20 m bgl and from the range of soil types encountered in the exploratory locations. A catalogue of soil samples subjected to chemical testing is contained in Appendix D.2.

6.4.4 Soil chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

Table 6-2 : KTA – Summary of Chemical Testing in Soil Samples

No of Samples	Description	Notes
83	Suite E1a – Primary metals and metalloids	Comprises Arsenic, Boron (Water soluble), Cadmium, Chromium (total), Chromium (trivalent), Chromium (hexavalent), Copper, Lead, Mercury, Nickel, Selenium and Zinc
2	Suite E1b – Secondary metals and metalloids	Comprises Antimony, Barium, Beryllium, Molybdenum and Vanadium
82 *	Suite E2 – Inorganics	Comprises pH, Soil Organic Matter, Total Organic Carbon, Sulphate, Sulphide, and loss on ignition
41	Suite E3 – CN/Phenol	Comprises Cyanide (free) and Phenols (total)
42	Suite E4a – Asbestos	Asbestos Presence and ID
83	Suite E6a – TPH CWG	TPH CWG
83	Suite E7a – Speciated PAHs	USEPA 16 PAHS
0	Suite E9 – SVOCs and VOCs	Semi Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs)
* testing could not be carried out on one sample		

6.5 Chemical Testing – Leachate

6.5.1 A total of 29 soil samples from exploratory hole locations were subject to leachate preparation to ascertain the mobility of substances in the soil. Leachate extraction was undertaken as part of the Waste Acceptance Criteria (WAC) preparation method.

6.5.2 The locations of the leachate / WAC analysis locations are presented in Drawings HE565627-AMY-HGT-S0405-DR-CE-000114 to HE565627-AMY-HGT-S0405-DR-CE-000117, (Appendix A.3). A catalogue of WAC samples scheduled for analysis is contained in Appendix D.2.

6.5.3 The samples tested were taken from depths ranging from 0.10 m bgl to 3.20 m bgl and from the range of soil types encountered in the exploratory locations.

6.5.4 Samples selected to undergo Waste Acceptance Criteria (WAC) analysis were subject to leachate preparation using method BS EN 12457-3 which involves a 2-stage leaching process (a moisture corrected 2:1 liquid to solid ratio leaching step for 6 hours followed by a moisture corrected 8:1 liquid to solid ratio leaching step on the remaining material for 18 hours). The combined results from which are calculated to provide analytical data reported as mg/kg dry weight at 10:1.

6.5.5 The Environment Agency Remedial Targets Methodology (33) report states that pore water concentrations determined for samples with a 2:1 liquid/solid ratio are preferable for risk assessment purposes with the 10:1 liquid/solid ratio leachate is preferred for waste characterisation.

6.5.6 Leachate chemical analysis results (undertaken during WAC extraction) are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E) and summary of the leachate analysis undertaken is presented in Table 6-3 below.

Table 6-3 : KTA – Summary of Chemical Testing in Leachate Samples

No of Samples	Description	Notes
29	pH	2:1 liquid/solid ratio
29	Electrical Conductivity / Total Dissolved Solids / Chloride / Fluoride / Sulphate / DOC	
29	Metals (Antimony, Arsenic, Barium, Cadmium, Copper, Chromium, lead, Mercury, Molybdenum, Nickel, Selenium, Zinc)	
29	Phenols	

6.6 Chemical Testing – Groundwater

6.6.1 Groundwater sampling was attempted in all five groundwater monitoring wells installed in boreholes sunk during the Temple Sowerby to Appleby (Crackenthorpe) ground investigation, however groundwater samples were only able to be recovered from four of the five monitoring as one well contained insufficient water to sample.

6.6.2 The locations of the monitoring wells are presented within Drawings HE565627-AMY-HGT-S0405-DR-CE-000120 to HE565627-AMY-HGT-S0405-DR-CE-000122, (Appendix A.3) and a summary of the groundwater sampling locations are presented in Table 6-4 and Table 6-5.

6.6.3 Groundwater monitoring wells were developed by purging of three well volumes of groundwater (unless indicated otherwise on the monitoring results) on the first of four groundwater monitoring rounds (26th, 27th of May and 1st of June 2021). One 'low flow' groundwater sampling round was carried out on the second of four monitoring rounds between the 8th and 10th June 2021. The remaining three rounds comprised groundwater level and gas monitoring only.

Table 6-4 : KTA – Sampled Groundwater Installations

Expl. Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH KTA015	5.00 – 8.00	Cohesive Glacial Till	Sampled
BH KTA018	9.00 – 16.00	Cohesive Glacial Till	Sampled
BH KTA021	1.00 – 3.60	Cohesive Glacial Till	Sampled
BH KTA022	2.00 – 7.00	Cohesive Glacial Till	Sampled

Table 6-5 : KTA – Groundwater Installations Without Groundwater Sampling

Expl. Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH KTA004	6.30 – 8.80	Cohesive Glacial Till	Insufficient groundwater for sampling

6.6.4 All groundwater and surface water samples were subjected to a full suite of chemical analysis as presented in Table 6-6 below.

6.6.5 Groundwater chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

Table 6-6 : KTA – Summary of Chemical Testing in Groundwater Samples

No of Samples	Description	Notes
4	Suite F1a – Metals and metalloids	Comprises pH, Arsenic, Cadmium, Chromium (III and IV), Copper, Iron, Lead, Mercury, Nickel, Selenium, Zinc, Calcium, Hardness and Alkalinity as CaC03
0	Suite F1b – secondary metals and metalloids	Comprises Boron, Magnesium, Manganese, Molybdenum and Vanadium
4	Suite F2 – Major ions	Comprises Sulphate, Chloride, Nitrate, Sulphide, Nitrite, Sodium and Potassium
4	Suite F3 – Ammoniacal nitrogen	Ammoniacal Nitrogen
4	Suite F4 – Electrical conductivity	Electrical conductivity
4	Suite F5 – Total suspended solids	Total Suspended Soils
0	Suite F6 – Oxygen demand	Comprises biological oxygen demand and chemical oxygen demand
4	Suite F7a – TPH CWG	TPH CWG
4	Suite F8 – Speciated PAHs	PAHs (USEPA 16)

6.7 Chemical Testing – Surface Water

6.7.1 No significant surface waters are located in close proximity to the GI locations sunk to investigate the KTA scheme during this phase of investigation. Whilst the Trout Beck broadly defines the western extent of the KTA scheme, land access constraints prevented surface

water samples from being obtained and consequently no surface water samples were taken during this phase of investigation of the Temple Sowerby to Appleby (Crackenthorpe) Ground Investigation.

6.8 Groundwater and Ground Gas Monitoring

6.8.1 Gas and groundwater levels were recorded at weekly intervals on four occasions, undertaken between 26th May 2021 and 23rd June 2021.

6.8.2 The Monitoring and Post Fieldwork Environmental Sampling Methodology is set out in Section 3.5 of the Ground Investigation Contractor's Factual Report (32) (Appendix E)

6.8.3 The results of the groundwater and ground gas monitoring, together with the temporal (weather) conditions are tabulated in Appendix F (Monitoring) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

6.8.4 The ground gas monitoring results are summarised in Table 6-7 below.

Table 6-7 : KTA – Groundwater & Ground Gas Monitoring Summary

Expl. Hole	Methane Conc. % v/v	CO2 Conc. % v/v	O2. Conc. % v/v	Flow (l/h)	Response Zone (m bgl)	Strata	Water Level (m bgl)
BH KTA004	0.0 – 0.3	0.0 – 0.2	3.6 – 20.8	-0.6	6.30 – 8.80	Cohesive Glacial Till	DRY
BH KTA015	0.0	0.0 – 0.3	18.8 – 20.8	0.3	5.00 – 8.00	Cohesive Glacial Till	0.87 – 1.23
BH KTA018	0.0 - 0.1	0.1 – 0.7	11.9 – 20.9	0.1	9.00 – 16.00	Cohesive Glacial Till	7.22 – 7.56
BH KTA021	0.0	0.1 – 0.7	0.0 – 20.9	-0.7	1.00 – 3.60	Cohesive Glacial Till	2.33 – 3.36
BH KTA022	0.0 – 0.2	0.1 – 4.8	12.4 – 21.1	0.1	2.00 – 7.00	Cohesive Glacial Till	2.47 – 2.75

6.8.5 In BH KTA015 the response zone was flooded with groundwater and therefore the results of the gas monitoring are considered to be unreliable due to this and results should be treated with caution.

6.9 Human Health Assessment – Site End Users

6.9.1 Key potential sources of contamination have been identified and discussed in the PSSR (29) and PEI Report (30). To enable a preliminary human health risk assessment, suitable Generic Assessment Criteria (GAC) have been selected for comparison with the chemical test results obtained from soil samples.

6.9.2 The Human Health Risk Assessment (HHRA) risk assessment methodology is outlined in Appendix D.1.

6.9.3 Soil Samples have been screened against Generic Assessment Criteria (GAC) selected from the following strict hierarchy:

- Category 4 Screening Levels (C4SLs) as coordinated by CL:AIRE on behalf of the Department for Environment, Food and Rural Affairs (34) (35);
- LQM/CIEH Suitable 4 Use Levels (S4UL) (36) where published C4SLs are not available; or
- Atkins ATRISKsoil Soil Screening Values (SSVs) (37).

6.9.4 Following a review of default land use scenarios underpinning these models, the "Public Open Space – Park" (POS_{Park}) land use, utilising 1% Soil Organic Matter (SOM) has been selected for use on this project as it is considered to be suitably precautionary for the proposed land use under consideration (i.e. major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SuDS ponds etc) with regards to selection of critical receptor and behavioural exposure parameters.

6.9.5 The full analytical results addressed in this report are presented in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

6.9.6 The screening of results is presented in Appendix D.4.1. None of the test results exceeded the screening criteria.

6.10 Human Health Assessment – Construction and Maintenance Workers

6.10.1 The study area comprises a major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SUDs ponds etc, and it is unlikely the public will access to the land along the scheme on a routine basis post development.

6.10.2 Therefore, the preliminary human health assessment is primarily aimed at identifying significant contamination issues that may impact the scheme design or affect project personnel who will perform the infrastructure upgrade works and subsequent maintenance.

6.10.3 Construction and maintenance workers are more likely to be at risk from acute (short term, high dose) exposure to contaminants within the soils during periods of episodic occupational exposure.

6.10.4 Generic Assessment Criteria (GAC) are for the most part (with the exception of cyanide) protective of chronic (i.e. long term, low dose) exposure rather than the effects of acute exposure. In general, GACs which are protective of chronic exposure are orders of magnitude lower than those which are protective of acute exposure.

6.10.5 The results of the chronic exposure assessment undertaken within Section 5.8.5 above are considered to be conservative when assessing risks posed to construction and maintenance workers on a site in an occupational exposure setting.

6.10.6 There were no exceedances of the GAC recorded in Section 7.9 however consideration should be given to managing unexpected contamination in further ground investigation or construction works.

6.11 Asbestos Assessment

6.11.1 42 soil samples were screened for asbestos containing materials (presence and identification and quantification) as part of the laboratory assessment. Visual observations on site were also considered.

6.11.2 No asbestos was detected within any samples examined in the laboratory or observed during ground investigation works.

6.12 Controlled Waters Risk Assessment – Tier 1 Assessment

6.12.1 The controlled waters risk assessment (CWRA) should be considered informative, in so much as it presents an evaluation of baseline conditions of the chemistry of leachate, groundwater and surface water samples encountered at discrete locations along the scheme prior to construction works commencing that may inform future designs.

6.12.2 33 samples (comprising 29 no. leachate, and 4 no. groundwater samples) which were recovered and analysed in the course of the Ground Investigation have been assessed to identify potential risks to groundwater resources underlying the study area and to surface waters in the vicinity of the site.

6.12.3 The Controlled Waters Risk Assessment (CWRA) has been undertaken with an initial precautionary Tier 1 assessment. The CWRA Methodology is set out in Appendix D.1.

6.12.4 The Tier 1 CWRA has been undertaken comparing the observed concentration against the lowest of available relevant Water Quality Standards (WQS) (i.e. Drinking Water Standards (DWS) or Environmental Quality Standards (EQS).

6.12.5 The results of the Tier 1 (T1) Controlled Waters Risk Assessment screen are presented in Appendix D.4.2.

6.12.6 Of the 33 leachate and groundwater samples which underwent the T1 WQS assessment, six leachate samples (TP KTA003 at 2.0m, TP KTA009 at 3.2m, BH KTA003 at 2.0m, BH KTA012 at 1.2m, BH KTA017 at 0.5m and BH KTA021 at 0.3m) passed the conservative T1 WQS assessment.

6.12.7 T1 WQS failures were identified for pH, ammoniacal nitrogen, copper, lead, molybdenum, sodium, zinc, toluene and several TPH fractions in 27 samples (comprising 23 leachate and 4 groundwater samples) and therefore it was necessary to undertake a more detailed Tier 2 assessment of the water results.

6.12.8 In accordance with the Controlled Waters Risk Assessment Methodology" set out in Appendix D.1, samples where T1 WQS exceedances have been identified undergo review to determine whether it is possible to exclude the DWS or EQS receptors from the T1 assessment (e.g. due to sample type / proximity to surface water etc). If it is possible to exclude the DWS or EQS receptor, the T1 exceedances can progress to a more relevant T2 (DWS) or T2 (EQS) assessment.

6.12.9 The sample specific Tier 2 Assessment Point WQS evaluation can be found in Appendix D.4.3. This identifies locations where Tier 1 WQS exceedances were recorded and whether it is possible to consider further Tier 2 CWRA.

6.12.10 27 samples (comprising 23 leachate and 4 groundwater samples) which recorded exceedances of the T1 WQS were able to advance to a T2 DWS assessment. No samples required T2 EQS assessment.

6.13 Controlled Waters Risk Assessment – Tier 2 Groundwater Resource Protection

6.13.1 The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point. (e.g. a groundwater sample, distal to a surface water receptor would be assessed against Drinking Water Standards (DWS) only to protect groundwater drinking water resources.

6.13.2 The results of the Tier 2 Groundwater Resource Protection (T2 DWS) CWRA are presented in Appendix D.4.4. Failures of T2 DWS are summarised in Table 6-8.

Table 6-8 : KTA – Summary of T2 DWS Exceedances

Contaminant of Concern	DWS	Result	Expl. Hole
pH	Between 6.5 and 9.5	pH 12.64	BH KTA018 (groundwater)
		pH 5.22	TP KTA012, 0.4m (leachate)
		pH 5.22	TP KTA014, 0.2m (leachate)
		pH 6.09	TP KTA015, 0.6m (leachate)
		pH 5.87	TP KTA016, 0.5m (leachate)
		pH 5.6	TP KTA017, 0.5m (leachate)
		pH 6.1	TP KTA019, 1.2m (leachate)
		pH 5.56	BH KTA004, 0.5m (leachate)
		pH 5.9	BH KTA005, 1.0m (leachate)
		pH 6.24	BH KTA007, 1.2m (leachate)
		pH 4.98	BH KTA008, 0.2m (leachate)

Contaminant of Concern	DWS	Result	Expl. Hole
		pH 6.37	BH KTA013, 1.2m (leachate)
		pH 5.69	BH KTA014, 0.2m (leachate)
		pH 6.35	BH KTA018, 1.5m (leachate)
		pH 6.13	BH KTA020, 0.5m (leachate)
Ammoniacal Nitrogen	0.5 mg/l	0.78 mg/l	BH KTA015 (groundwater)
		0.57 mg/l	BH KTA022 (groundwater)
Sulphate	250 mg/l	336 mg/l	BH KTA018 (groundwater)
		265 mg/l	BH KTA021 (groundwater)
Lead	10 µg/l	33 µg/l	TP KTA002, 0.2m (leachate)
		15 µg/l	TP KTA012, 0.4m (leachate)
		16 µg/l	TP KTA016, 0.5m (leachate)
		12 µg/l	TP KTA018, 0.2m (leachate)
		11 µg/l	TP KTA019, 1.2m (leachate)
		12 µg/l	BH KTA004, 0.5m (leachate)
		19 µg/l	BH KTA008, 0.2m (leachate)
		17 µg/l	BH KTA014, 0.2m (leachate)
Sodium	200 mg/l	595 mg/l	BH KTA018 (groundwater)
		347 mg/l	BH KTA021 (groundwater)
Aromatic >C10 - C12	90 µg/l	127 µg/l	BH KTA018 (groundwater)
		122 µg/l	BH KTA021 (groundwater)
Aromatic >C12 - C16	90 µg/l	178 µg/l	BH KTA021 (groundwater)

6.13.3 Total Petroleum Hydrocarbon exceedances were recorded in groundwater samples from BH KTA018 and BH KTA021. Some other aliphatic and aromatic carbon bands and also toluene were also present at detectable concentrations in both locations; however, no corresponding detectable concentration was recorded within the soil (solid) samples from those locations.

6.13.4 Minor exceedances for lead were recorded in 8 of the 23 leachate samples that were taken to T2 DWS assessment. Leachate extraction tends to overestimate the real-world leachability potential of soils and it is likely the concentration of lead being released naturally is likely to be lower – this is confirmed by the relative absence of lead in groundwater samples from the same locations (e.g. BH KT018 and BH KTA021 both have leachate and groundwater samples), it was also not detected at significant concentrations in soil samples.

6.13.5 Numerous T2 DWS exceedances of lead within leachate samples has been recorded. The reason for this has not been established, however it has been speculated this may be as a result of naturally elevated background levels resulting from regional bedrock mineralisation.

6.14 Controlled Waters Risk Assessment – Tier 2 Surface Water Assessment

6.14.1 As discussed in Section 7.7 and the WQS Evaluation Table in Appendix D.4.3, no significant surface waters are located in close proximity to the GI locations sunk to investigate the KTA scheme during this phase of investigation. Whilst the Trout Beck broadly defines the western extent of the KTA scheme, land access constraints prevented surface water samples from being obtained and consequently no surface water samples were taken during this phase of investigation of the Temple Sowerby to Appleby (Crackenthorpe) Ground Investigation.

6.14.2 The Tier 2 surface water assessment has not been considered further.

6.15 Re-use of Soils

6.15.1 Introducing a soil material re-use strategy will be consistent with National Highways' commitment to incorporate sustainable methods into the design of projects as outlined in GG103 (Introduction and general requirements for sustainable development and design, 2019). The re-use of soil materials within the scheme will reduce quantities of material destined for landfill, waste generation, unnecessary costs, and unnecessary journeys.

6.15.2 In addition, the requirement to import fill materials (and associated costs) may also be reduced. This will assist with meeting National Highways' environmental sustainability goals, including minimising greenhouse gas emissions, reducing waste generation, using sustainably sourced materials, and being resource efficient and reflecting a circular approach to the use of materials.

6.15.3 Prior to excavations and re-use of the material, an appropriate re-use methodology and Materials Management Plan, and associated Verification Plan document, should be completed to enable the re-use of the material. The Verification Plan should identify how the placement of materials is to be recorded and the quantity of materials to be used, including a statement on how the use of the materials relates to the highway design. Verification testing results should be compared to re-usability criteria from a corresponding Series 600 Earthworks Specification and Verification Plan.

6.16 Waste Classification

6.16.1 A preliminary waste classification exercise has been undertaken in line with the guidance set out in the Environment Agency: Guidance on the Classification and Assessment of Waste Technical Guidance WM3 document (38) using the results obtained from the ground investigations to determine the likely waste classification of soils within the scheme and provide a likely List of Waste (LoW) code in the event they require to be discarded as a waste.

6.16.2 The Waste Assessment methodology is outlined in Appendix D.1. Soil quality data from the ground investigation was entered into the HazWasteOnline™ (39) hazard assessment tool.

6.16.3 A total of 83 soil samples (comprising 20 from Topsoil, 19 from Made Ground, and 44 from natural superficial deposits) have been assessed using the HazWasteOnline™ tool.

6.16.4 All soil samples were classified as “Non-Hazardous”.

6.16.5 The results of the HazWasteOnline™ assessment are contained in the report outputs presented in Appendix D.7.

7 Appleby to Brough Geo-environmental Model

7.1 Introductory Information

7.1.1 Geo-environmental testing of soils and waters samples recovered during the ground investigation was undertaken to enable preliminary human health and controlled waters assessments to quantify the contamination risk potential within the boundary of the scheme and to assess soils re-use potential and suitable waste disposal routes for surplus soils.

7.1.2 This section summarises the geo-environmental testing of made ground and natural strata encountered along the scheme as well as testing of groundwater and surface water samples. The analysis of this data enables a preliminary assessment of the risks posed to human health and controlled waters by comparing the test results against screening values to provide an indication of relative levels of contamination present along the scheme. This approach is consistent with Stage 1 of the Environment Agency's Land Contamination Risk Management (LCRM). This review also includes waste hazard classification of the samples analysed, and a discussion on potential waste disposal routes.

7.1.3 An assessment of the potential contamination sources on site was carried out within National Highways' A66 Northern Trans-Pennine Project (NTP) Preliminary Sources Study Report (PSSR) (29). This study was augmented by a review of the site history within the Chapter 9 (Geology and Soils) of the Preliminary Environmental Impact (PEI) Report (30).

7.2 Visual and Olfactory Evidence of Contamination

7.2.1 Visual evidence of contamination during the ground investigation predominantly comprised fragments of man-made ash and gravel in Made Ground strata. The observations are summarised in Table 7-1 below.

Table 7-1 : AB – Visual and Olfactory Evidence of Contamination

Exploratory Hole No	Observation	Depth (m bgl)	Strata	Description
BH AB010	Visual	0.1	Made Ground	Brick fragments
BH AB015	Visual	0.5	Clay	Coal fragments observed
BH AB030	Visual	0.3	Made Ground	Ash observed
TP AB029	Visual	0.2	Made Ground	Clinker observed

7.3 Chemical Testing Overview

7.3.1 The strategy for chemical testing was developed based upon consideration of the preliminary conceptual site model presented in the Technical Appraisal Report (31), PSSR (29) and PEI Report (30) and the materials encountered during the ground investigation. Soil and water samples selected by the A66 NTP Integrated Project Team were sent to Envirolab under a subcontract arrangement with the GI contractor Structural Soils Ltd (SSL) for selected

chemical analysis. The testing carried out on soil and water samples is summarised in Section 7.4 to Section 7.7 below.

7.3.2 A full description of analytical suites and limits of detection are presented in Appendix D.1.

7.4 Chemical Testing – Soils

7.4.1 A total of 189 soil samples (comprising 53 from Topsoil, 17 from Made Ground, and 119 from natural superficial deposits) from exploratory hole locations relevant to Appleby to Brough (Warcop) were tested for a range of chemical determinands likely to be encountered on the site as a result of its current and historical land use and geological setting.

7.4.2 The locations of the soil sampling locations are presented in Drawings HE565627-AMY-HGT-S06-DR-CE-000123 and HE565627-AMY-HGT-S06-DR-CE-000128, (Appendix A.4).A summary of soil chemical testing undertaken is presented in Table 7-2.

7.4.3 The samples tested were taken from depths ranging from 0.10 m bgl to 3.20 m bgl and from the range of soil types encountered in the exploratory locations. A catalogue of soil samples subjected to chemical testing is contained in Appendix D.2.

7.4.4 Soil chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

Table 7-2 : AB – Summary of Chemical Testing in Soil Samples

No of Samples	Description	Notes
189	Suite E1a – Primary metals and metalloids	Comprises Arsenic, Boron (Water soluble), Cadmium, Chromium (total), Chromium (trivalent), Chromium (hexavalent), Copper, Lead, Mercury, Nickel, Selenium and Zinc
0	Suite E1b – Secondary metals and metalloids	Comprises Antimony, Barium, Beryllium, Molybdenum and Vanadium
188 *	Suite E2 – Inorganics	Comprises pH, Soil Organic Matter, Total Organic Carbon, Sulphate, Sulphide, and loss on ignition
74	Suite E3 – CN/Phenol	Comprises Cyanide (free) and Phenols (total)
69	Suite E4a – Asbestos	Asbestos Presence and ID
189	Suite E6a – TPH CWG	TPH CWG
189	Suite E7a – Speciated PAHs	USEPA 16 PAHS
8	Suite E9 – SVOCs and VOCs	Semi Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs)
* testing could not be carried out on one sample		

7.5 Chemical Testing – Leachate

7.5.1 A total of 88 soil samples from exploratory hole locations were subject to leachate preparation to ascertain the mobility of substances in the soil. Leachate extraction was undertaken as part of the Waste Acceptance Criteria (WAC) preparation method.

7.5.2 The locations of the leachate / WAC analysis locations are presented in Drawings HE565627-AMY-HGT-S06-DR-CE-000112 to HE565627-AMY-HGT-S06-DR-CE-000117, (Appendix A.4). A catalogue of WAC samples scheduled for analysis is contained in Appendix D.2.

7.5.3 The samples tested were taken from depths ranging from 0.2 m bgl to 2.4 m bgl and from the range of soil types encountered in the exploratory locations.

7.5.4 Samples selected to undergo Waste Acceptance Criteria (WAC) analysis were subject to leachate preparation using method BS EN 12457-3 which involves a 2 stage leaching process (a moisture corrected 2:1 liquid to solid ratio leaching step for 6 hours followed by a moisture corrected 8:1 liquid to solid ratio leaching step on the remaining material for 18 hours). The combined results from which are calculated to provide analytical data reported as mg/kg dry weight at 10:1.

7.5.5 The Environment Agency Remedial Targets Methodology report states that pore water concentrations determined for samples with a 2:1 liquid/solid ratio are preferable for risk assessment purposes with the 10:1 liquid/solid ratio leachate is preferred for waste characterisation.

7.5.6 Leachate chemical analysis results (undertaken during WAC extraction) are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) and summary of the leachate analysis undertaken is presented in Table 7-3 below

Table 7-3 : AB – Summary of Chemical Testing in Leachate Samples

No of Samples	Description	Notes
88	pH	2:1 liquid/solid ratio
88	Electrical Conductivity / Total Dissolved Solids / Chloride / Fluoride / Sulphate / DOC	
88	Metals (Antimony, Arsenic, Barium, Cadmium, Copper, Chromium, lead, Mercury, Molybdenum, Nickel, Selenium, Zinc)	
88	Phenols	

7.6 Chemical Testing – Groundwater

7.6.1 Groundwater sampling was attempted in all 23 groundwater monitoring wells installed in boreholes sunk during the Appleby to Brough (Warcop) ground investigation, however groundwater samples were only able to be recovered from 20 of the 23 monitoring as three wells contained insufficient water to sample.

7.6.2 The locations of the monitoring wells are presented in Drawings HE565627-AMY-HGT-S06-DR-CE-000118 to HE565627-AMY-HGT-S06-DR-CE-000122, (Appendix A.4) and a summary of the groundwater sampling locations are presented in Table 7-4 and Table 7-5.

7.6.3 Groundwater monitoring wells were developed by purging three well volumes of groundwater (unless indicated otherwise on the monitoring results) on the first of four groundwater monitoring rounds (26th, 27th of May and 1st of June 2021). One low flow groundwater

sampling round was carried out on the second of four monitoring rounds between the 8th and 10th June 2021. The remaining three rounds comprised groundwater level and gas monitoring only.

Table 7-4 : AB – Sampled Groundwater Installations

Expl. Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH AB001	9.50 – 13.00	Bedrock	Sampled
BH AB008 (deep)	9.00 – 12.00	Bedrock	Sampled
BH AB008 (shallow)	3.00 – 4.00	Granular Glacial Till	Sampled
BH AB009 (deep)	12.50 – 25.00	Bedrock	Sampled
BH AB009 (shallow)	2.00 – 10.00	Granular Glacial Till	Sampled
BH AB010 (deep)	10.00 – 25.00	Cohesive Glacial Till and Bedrock	Sampled
BH AB010 (shallow)	1.00 – 8.50	Granular Glacial Till	Sampled
BH AB011	1.00 – 10.00	Granular Glacial Till	Sampled
BH AB020	2.00 – 7.00	Granular Glacial Till	Sampled
BH AB025	1.70 – 3.20	Granular Glacial Till	Sampled
BH AB026	1.50 – 4.50	Granular Glacial Till	Sampled
BH AB027	14.00 – 20.00	Bedrock	Sampled
BH AB028	2.00 – 9.00	Granular Glacial Till	Sampled
BH AB031	1.00 – 4.00	Granular and cohesive Glacial Till	Sampled
BH AB032	1.00 – 6.00	Granular Glacial Till	Sampled
BH AB033	1.00 – 8.00	Granular Glacial Till	Sampled
BH AB042	10.50 – 15.00	Granular and cohesive Glacial Till	Sampled
BH AB043	7.50 – 18.50	Bedrock	Sampled
BH AB044	1.00 – 7.50	Granular and cohesive Glacial Till	Sampled
BH AB045	1.00 – 5.00	Cohesive Glacial Till	Sampled

Table 7-5 : AB – Groundwater Installations Without Groundwater Sampling

Expl. Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH AB021	3.00 – 5.00	Granular and cohesive Glacial Till	Insufficient groundwater for sampling
BH AB030	0.75 – 5.50	Granular Glacial Till	
BH AB034	3.00 – 4.00	Granular Glacial Till	

7.6.4 All groundwater and surface water samples were subjected to a full suite of chemical analysis as presented in Table 7-6 below.

7.6.5 Groundwater chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

Table 7-6 : AB – Summary of Chemical Testing in Groundwater Samples

No of Samples	Description	Notes
20	Suite F1a – Metals and metalloids	Comprises pH, Arsenic, Cadmium, Chromium (III and IV), Copper, Iron, Lead, Mercury, Nickel, Selenium, Zinc, Calcium, Hardness, Alkalinity as $CaCO_3$
0	Suite F1b – Secondary metals and metalloids	Comprises Boron, Magnesium, Manganese, Molybdenum and Vanadium

No of Samples	Description	Notes
20	Suite F2 – Major ions	Comprises Sulphate, Chloride, Nitrate, Sulphide, Nitrite, Sodium and Potassium
20	Suite F3 – Ammoniacal nitrogen	Ammoniacal Nitrogen
20	Suite F4 – Electrical conductivity	Electrical conductivity
20	Suite F5 – Total suspended solids	Total Suspended Soils
0	Suite F6 – Oxygen demand	Comprises biological oxygen demand and chemical oxygen demand
20	Suite F7a – TPH CWG	TPH CWG
20	Suite F8 – Speciated PAHs	PAHs (USEPA 16)

7.7 Chemical Testing – Surface Water

7.7.1 A total of five surface water samples were recovered from key sampling points on surface waters located within Appleby to Brough (Warcop) scheme on the second of four monitoring rounds between the 8th and 10th June 2021.

7.7.2 The locations of the surface water sampling points are presented within are presented in Drawings HE565627-AMY-HGT-S06-DR-CE-000118 to HE565627-AMY-HGT-S06-DR-CE-000122, (Appendix A.4) and a summary of the surface water sampling locations are presented in Table 7-7 below.

Table 7-7 : AB – Surface water sampling locations

Surface Water Sampling point	Sample point Co-ordinates (NGR)	Watercourse	Notes
SW BH AB021	374935, 516253	Moor Beck	Located close to A66 carriageway
SW BH AB025	375238, 515864	Moor Beck	Located close to Warcop Depot
SW BH AB026	375269, 515841	Moor Beck	
SW BH AB028	375432, 515779	Eastfield Sike	Located close to Warcop Depot and Warcop station
SW BH AB043	377665, 514998	Lowgill Beck	Located in fields

7.7.3 All surface water samples were subjected to a full suite of chemical analysis as presented in Table 7-8 below.

7.7.4 Surface water chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

Table 7-8 : AB – Summary of Chemical Testing in Surface Water Samples

No of Samples	Description	Notes
5	Suite F1a – Metals and metalloids	Comprises pH, Arsenic, Cadmium, Chromium (III and IV), Copper, Iron, Lead, Mercury, Nickel, Selenium, Zinc, Calcium, Hardness, Alkalinity as $CaCO_3$
0	Suite F1b – Secondary metals and metalloids	Comprises Boron, Magnesium, Manganese, Molybdenum and Vanadium
5	Suite F2 – Major ions	Comprises Sulphate, Chloride, Nitrate, Sulphide, Nitrite, Sodium and Potassium
5	Suite F3 – Ammoniacal nitrogen	Ammoniacal Nitrogen
5	Suite F4 – Electrical conductivity	Electrical conductivity

No of Samples	Description	Notes
0	Suite F5 – Total suspended solids	Total Suspended Soils
5	Suite F6 – Oxygen demand	Comprises biological oxygen demand and chemical oxygen demand
5	Suite F7a – TPH CWG	TPH CWG
5	Suite F8 – Speciated PAHs	PAHs (USEPA 16)

7.8 Groundwater and Ground Gas Monitoring

7.8.1 Gas and groundwater levels were recorded at weekly intervals on four occasions, undertaken between 26th May 2021 and 23rd June 2021.

7.8.2 The Monitoring and Post Fieldwork Environmental Sampling Methodology is set out in Section 3.5 of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

7.8.3 The results of the groundwater and ground gas monitoring, together with the temporal (weather) conditions are tabulated in Appendix F (Monitoring) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

7.8.4 The ground gas monitoring results are summarised in Table 7-9 below.

Table 7-9 : AB – Groundwater & Ground Gas Monitoring Summary

Expl. Hole	Methane Conc. % v/v	CO2 Conc. % v/v	O2. Conc. % v/v	Flow (l/h)	Response Zone (m bgl)	Strata	Water Level (m bgl)
BH AB001	0.0	0.1 – 1.3	16.3 – 20.8	0.0 – 0.4	9.50 – 13.00	Bedrock	5.20 – 5.37
BH AB008 (deep)	0.0	0.0 – 0.1	3.9 – 21.0	0.0 – 0.1	9.00 – 12.00	Bedrock	4.56 – 11.03
BH AB008 (shallow)	0.0	0.0 – 0.2	19.8 – 21.1	0.0 – 0.1	3.00 – 4.00	Glacial Till	0.96 – 1.46
BH AB009 (deep)	0.0	0.0 – 1.1	11.8 – 21.1	0.0	12.50 – 25.00	Bedrock	8.49 – 8.58
BH AB009 (shallow)	0.0	0.0 – 1.1	15.0 – 21.3	0.0 – 0.1	2.00 – 10.00	Glacial Till	3.03 – 3.14
BH AB010 (deep)	0.0	0.1 – 1.3	6.6 – 20.9	0.0	10.00 – 25.00	Glacial Till and Bedrock	11.52 – 11.77
BH AB010 (shallow)	0.0 – 0.2	0.0 – 0.1	20.1 – 21.0	0.0	1.00 – 8.50	Glacial Till	1.09 – 2.00
BH AB011	0.0	0.0 – 0.4	18.3 – 21.1	0.0 – 0.4	1.00 – 10.00	Glacial Till	1.51 – 1.58
BH AB020	0.0	0.0 – 7.6	13.9 – 20.9	0.0	2.00 – 7.00	Glacial Till	DRY – 3.03
BH AB021	0.0	0.1 – 4.6	8.5 – 20.9	0.0	3.00 – 5.00	Glacial Till	4.39 – 4.62
BH AB025	0.0	0.1 – 4.1	8.2 – 21.0	0.0 – 0.1	1.70 – 3.20	Glacial Till	0.92 – 1.20
BH AB026	0.0	0.1 – 1.8	19.6 – 20.8	0.0	1.50 – 4.50	Glacial Till	0.37 – 0.56
BH AB027	0.0	0.0 – 0.1	20.4 – 21.0	-0.7 – 0.0	14.00 – 20.00	Bedrock	1.45 – 1.58
BH AB028	0.0	0.1 – 2.8	12.7 – 20.9	0.0 – 0.1	2.00 – 9.00	Glacial Till	2.40 – 2.74

Expl. Hole	Methane Conc. % v/v	CO2 Conc. % v/v	O2. Conc. % v/v	Flow (l/h)	Response Zone (m bgl)	Strata	Water Level (m bgl)
BH AB030	0.0	0.0 – 1.6	18.5 – 21.1	0.0 – 1.0	0.75 – 5.50	Glacial Till	4.89 – 5.55
BH AB031	0.0	0.1 – 4.0	14.6 – 21.0	0.0 – 0.1	1.00 – 4.00	Glacial Till	2.36 – 3.59
BH AB032	0.0	0.1 – 4.3	14.6 – 21.2	0.0 – 0.3	1.00 – 6.00	Glacial Till	2.96 – 3.12
BH AB033	0.0	0.1 – 3.1	16.6 – 21.0	0.0	1.00 – 8.00	Glacial Till	4.46 – 4.62
BH AB034	0.0	0.1 – 3.4	16.8 – 20.9	0.0 – 0.1	3.00 – 4.00	Glacial Till	4.46 – 4.62
BH AB042	0.0	0.1 – 1.5	9.2 – 20.9	0.0 – 0.1	10.50 – 15.00	Glacial Till	6.91 – 7.32
BH AB043	0.0 – 0.7	0.1 – 2.0	18.8 – 20.9	0.0	7.50 – 18.50	Bedrock	11.50 – 11.76
BH AB044	0.0	0.0 – 0.8	12.8 – 20.9	0.0 – 0.6	1.00 – 7.50	Glacial Till	0.9 – 1.31
BH AB045	0.0	0.0 – 6.5	6.2 – 20.9	0.1	1.00 – 5.00	Glacial Till	1.22 – 2.06

7.8.5 Eight of the 23 installed boreholes had flooded response zones, (BH AB001, BH AB008 (shallow and deep), BH AB009 (deep), BH AB025, BH AB026, BH AB027 and BH AB044). The gas monitoring results within these wells are considered to be unreliable due to this and results should be treated with caution.

7.9 Human Health Assessment – Site End Users

7.9.1 Key potential sources of contamination have been identified and discussed in the PSSR (29) and PEI Report (30). To enable a preliminary human health risk assessment, suitable Generic Assessment Criteria (GAC) have been selected for comparison with the chemical test results obtained from soil samples.

7.9.2 The Human Health Risk Assessment (HHRA) risk assessment methodology is outlined in Appendix D.1.

7.9.3 Soil Samples have been screened against Generic Assessment Criteria (GAC) selected from the following strict hierarchy:

- Category 4 Screening Levels (C4SLs) as coordinated by CL:AIRE on behalf of the Department for Environment, Food and Rural Affairs (34) (35);
- LQM/CIEH Suitable 4 Use Levels (S4UL) (36) where published C4SLs are not available; or
- Atkins ATRISKsoil Soil Screening Values (SSVs) (37).

7.9.4 Following a review of default land use scenarios underpinning these models, the “Public Open Space – Park” (POS_{Park}) land use, utilising 1% Soil Organic Matter (SOM) has been selected for use on this project as it is considered to be suitably precautionary for the proposed land use under consideration (i.e. major highway scheme with associated earthworks, structures

road verge landscaping and ancillary features such as SUDs ponds etc) with regards to selection of critical receptor and behavioural exposure parameters.

7.9.5 The full analytical results addressed in this report are presented in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (32) (Appendix E).

7.9.6 The screening of results are presented in Appendix D.5.1. None of the test results exceeded the screening criteria.

7.10 Human Health Assessment – Construction and Maintenance Workers

7.10.1 The study area comprises a major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SUDs ponds etc, and it is unlikely the public will access the land along the scheme on a routine basis post development.

7.10.2 Therefore, the preliminary human health assessment is primarily aimed at identifying significant contamination issues that may impact the scheme design or affect project personnel who will perform the infrastructure upgrade works and subsequent maintenance.

7.10.3 Construction and maintenance workers are more likely to be at risk from acute (short term, high dose) exposure to contaminants within the soils during periods of episodic occupational exposure.

7.10.4 Generic Assessment Criteria (GAC) are for the most part (with the exception of cyanide) protective of chronic (i.e. long term, low dose) exposure rather than the effects of acute exposure. In general, GACs which are protective of chronic exposure are orders of magnitude lower than those which are protective of acute exposure.

7.10.5 The results of the chronic exposure assessment undertaken within Section 7.9 are conservative when assessing risks posed to construction and maintenance workers on a site in an occupational exposure setting.

7.10.6 There were no exceedances of the GAC recorded in Section 7.9 however consideration should be given to managing unexpected contamination in further ground investigation or construction works.

7.11 Asbestos Assessment

7.11.1 69 soil samples were screened for asbestos containing materials (presence and identification and quantification) as part of the laboratory assessment. Visual observations on site were also considered.

7.11.2 No asbestos was detected within any samples examined in the laboratory or observed during ground investigation works.

7.12 Controlled Waters Risk Assessment – Tier 1 Assessment

7.12.1 The controlled waters risk assessment (CWRA) should be considered informative, in so much as it presents an evaluation of baseline conditions of the chemistry of leachate, groundwater and surface water samples encountered at discrete locations along the scheme prior to construction works commencing that may inform future designs.

7.12.2 113 samples (comprising 88 no. leachate, 20 no. groundwater and 5 no. surface water samples) which were recovered and analysed in the course of the Ground Investigation have been assessed to identify potential risks to groundwater resources underlying the study area and to surface waters in the vicinity of the site.

7.12.3 The Controlled Waters Risk Assessment (CWRA) has been undertaken with an initial precautionary Tier 1 assessment. The CWRA Methodology is set out in Appendix D.1.

7.12.4 The Tier 1 CWRA has been undertaken comparing the observed concentration against the lowest of available relevant Water Quality Standards (WQS) (i.e. Drinking Water Standards (DWS) or Environmental Quality Standards (EQS).

7.12.5 The results of the Tier 1 (T1) Controlled Waters Risk Assessment screen are presented in Appendix D.5.2.

7.12.6 Of the 113 leachate, groundwater and surface water samples which underwent the T1 WQS assessment, , two leachate samples (BH AB001 at 0.5m and BH AB003 at 1.2m) passed the conservative T1 WQS assessment.

7.12.7 T1 WQS failures were identified for pH, conductivity, ammoniacal nitrogen, chloride, nitrite, nitrate, arsenic, copper, sodium, lead, molybdenum, nickel, zinc, several PAH compounds and TPH fractions, in 111 samples (comprising 86 leachate 20 groundwater and 5 surface water samples) and therefore it was necessary to undertake a more detailed Tier 2 assessment of the water results.

7.12.8 In accordance with the Controlled Waters Risk Assessment Methodology" set out in Appendix D.1, samples where T1 WQS exceedances have been identified undergo review to determine whether it is possible to exclude the DWS or EQS receptors from the T1 assessment (e.g. due to sample type / proximity to surface water etc). If it is possible to exclude the DWS or EQS receptor, the T1 exceedances can progress to a more relevant T2 (DWS) or T2 (EQS) assessment.

7.12.9 The sample specific Tier 2 Assessment Point WQS evaluation can be found in Appendix D.5.4 This identifies locations where Tier 1 WQS exceedances were recorded and whether it is possible to consider further Tier 2 CWRA.

7.12.10 14 samples (12 no. leachate and 2 no. groundwater) were located 50m or less from a surface water and therefore have been conservatively screened against both DWS and WQS and are

unable to progress to T2 WQS evaluation. A summary of the T1 WQS exceedances unable to progress to T2 are summarised Appendix D.5.3 ad in are presented in Table 7-10 below.

Table 7-10 : AB – Summary of T1 WQS Exceedances unable to progress to T2

Contaminant of Concern	WQS	WQS Source	Result	Expl. Hole
pH	6.5 – 9.5	UK DWS	12.99	BH AB027 (groundwater)
			6.1	BH AB012, 0.5m (leachate)
			5.76	BH AB018, 0.3m (leachate)
			6.08	BH AB022, 0.5m (leachate)
			6.03	BH AB023, 0.5m (leachate)
			6.38	BH AB024, 0.5m (leachate)
			5.84	BH AB027, 0.5m (leachate)
			5.95	BH AB028, 0.2m (leachate)
			6.49	BH AB047, 0.5m (leachate)
			6.35	TP AB031, 1.2m (leachate)
Conductivity	2500	UK DWS	2700	BH AB027 (groundwater)
Ammoniacal Nitrogen	0.04	EQS	0.44	BH AB027 (groundwater)
Chloride	250	UK DWS	354	BH AB028 (groundwater)
Copper	1	EQS	17	BH AB027 (groundwater)
			9	BH AB028 (groundwater)
			55	BH AB012, 0.5m (leachate)
			16	BH AB018, 0.3m (leachate)
			14	BH AB022, 0.5m (leachate)
			24	BH AB023, 0.5m (leachate)
			34	BH AB024, 0.5m (leachate)
			28	BH AB027, 0.5m (leachate)
			13	BH AB028, 0.2m (leachate)
			26	BH AB047, 0.5m (leachate)
			25	BH AB048, 0.5m (leachate)
			5	TP AB031, 1.2m (leachate)
			16	TP AB057, 1.5m (leachate)
			41	TP AB059, 0.5m (leachate)
Lead	10	UK DWS	71	BH AB012, 0.5m (leachate)
			14	BH AB022, 0.5m (leachate)
			45	BH AB023, 0.5m (leachate)
			18	BH AB024, 0.5m (leachate)
			23	BH AB027, 0.5m (leachate)
			20	BH AB028, 0.2m (leachate)
			13	BH AB047, 0.5m (leachate)
			81	BH AB048, 0.5m (leachate)
			51	TP AB059, 0.5m (leachate)
Sodium	200	UK DWS	246	BH AB027 (groundwater)
			321	BH AB028 (groundwater)
Zinc	10.9	EQS	66	BH AB012, 0.5m (leachate)
			13	BH AB022, 0.5m (leachate)
			31	BH AB023, 0.5m (leachate)
			13	BH AB024, 0.5m (leachate)

Contaminant of Concern	WQS	WQS Source	Result	Expl. Hole
			39	BH AB027, 0.5m (leachate)
			33	BH AB028, 0.2m (leachate)
			38	BH AB048, 0.5m (leachate)
			18	TP AB057, 1.5m (leachate)
			20	TP AB059, 0.5m (leachate)
Aromatic >C8 - C10	300	WHO DWS	512	BH AB027 (groundwater)
Aromatic >C10 - C12	90	WHO DWS	206	BH AB027 (groundwater)

7.12.11 92 samples (comprising 74 no leachate and 18 no. groundwater samples) which recorded exceedances of the T1 WQS were able to advance to a T2 DWS assessment. 5 no. surface water samples able to advance to a T2 EQS assessment.

7.13 Controlled Waters Risk Assessment – Tier 2 Groundwater Resource Protection

7.13.1 The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point. (e.g. a groundwater sample, distal to a surface water receptor would be assessed against Drinking Water Standards (DWS) only to protect groundwater drinking water resources.

7.13.2 The results of the Tier 2 Groundwater Resource Protection (T2 DWS) CWRA are presented in Appendix D.5.5. Failures of T2 DWS are summarised in Table 7-11.

Table 7-11 : AB – Summary of T2 DWS Exceedances

Contaminant of Concern	DWS	Result	Expl. Hole
Electrical Conductivity	2500	3220	BH AB008 (deep, groundwater)
		2590	BH AB009 (shallow, groundwater)
Chloride	250	687	BH AB009 (shallow, groundwater)
		372	BH AB026 (groundwater)
		708	BH AB042 (groundwater)
		515	BH AB043 (groundwater)
Nitrite	0.5	1.6	BH AB009 (shallow, groundwater)
		6.7	BH AB033 (groundwater)
Nitrate	50	64.5	BH AB032 (groundwater)
		228	BH AB033 (groundwater)
Arsenic	10	11	BH AB025 (groundwater)
		19	TP AB005, 0.5m (leachate)
		32	TP AB012, 0.6m (leachate)
		19	TP AB052, 1.2m (leachate)
		12	TP AB055, 0.5m (leachate)
Chromium (total)	50	52	TP AB005, 0.5m (leachate)
		68	TP AB012, 0.6m (leachate)
Lead	10	27	TP AB001, 0.2m (leachate)
		61	TP AB002, 0.5m (leachate)
		37	TP AB005, 0.5m (leachate)

Contaminant of Concern	DWS	Result	Expl. Hole
		15	TP AB011, 0.6m (leachate)
		41	TP AB012, 0.6m (leachate)
		34	TP AB015, 0.2m (leachate)
		12	TP AB019, 0.5m (leachate)
		16	TP AB020, 0.5m (leachate)
		12	TP AB025, 0.6m (leachate)
		12	TP AB026, 0.2m (leachate)
		18	TP AB027, 0.2m (leachate)
		42	TP AB030, 0.2m (leachate)
		15	TP AB033, 0.6m (leachate)
		11	TP AB037, 1.5m (leachate)
		11	TP AB041, 0.6m (leachate)
		14	TP AB042, 0.2m (leachate)
		18	TP AB046, 0.5m (leachate)
		18	TP AB048, 1.5m (leachate)
		42	TP AB049, 0.2m (leachate)
		14	TP AB050, 0.6m (leachate)
		19	TP AB052, 1.2m (leachate)
		12	TP AB025, 0.6m (leachate)
		25	TP AB054, 0.2m (leachate)
		52	TP AB055, 0.2m (leachate)
		11	TP AB056, 0.5m (leachate)
		37	BH AB019, 0.5m (leachate)
		18	BH AB025, 0.2m (leachate)
		13	BH AB026, 1.2m (leachate)
		34	BH AB031, 0.2m (leachate)
		38	BH AB033, 0.5m (leachate)
		19	BH AB039, 1.2m (leachate)
		12	BH AB042, 0.5m (leachate)
		25	BH AB046, 1.0m (leachate)
		32	TP AB BORROWPIT01, 0.2m (leachate)
Nickel	20	26	TP AB005, 0.5m (leachate)
		32	TP AB012, 0.6m (leachate)
		32	BH AB019, 0.5m (leachate)
Sodium	200	409	BH AB009 (shallow, groundwater)
		207	BH AB026 (groundwater)
		290	BH AB043 (groundwater)
Aliphatic >C12 – C16	300	571	BH AB043 (groundwater)
Aromatic >C8 - C10	90	121	BH AB008 (groundwater, deep)
Aromatic >C10 - C12	90	112	BH AB008 (groundwater, deep)
Aromatic >C12 - C16	90	135	BH AB008 (groundwater, deep)
		132	BH AB043 (groundwater)

7.13.3 Total Petroleum Hydrocarbon exceedances were recorded in groundwater samples from BH AB008 and BH AB043. Some other aliphatic and aromatic carbon bands and also toluene

were also present at detectable concentrations in both locations; however, no corresponding detectable concentration was recorded within the soil (solid) samples from those locations.

7.13.4 Minor exceedances for lead (34 of the 74 leachate samples) and arsenic (5 of the 74 leachate samples) were recorded and were taken to T2 DWS assessment. Leachate extraction tends to overestimate the real-world leachability potential of soils and it is likely the concentration of lead and arsenic being released naturally is likely to be lower – this is confirmed by the relative absence of lead and arsenic in groundwater samples from the same locations have leachate and groundwater samples), it was also not detected at significant concentrations in soil samples.

7.13.5 Numerous T2 DWS exceedances of lead and arsenic within leachate samples has been recorded. The reason for this has not been established, however it has been speculated this may be as a result of naturally elevated background levels resulting from regional bedrock mineralisation.

7.14 Controlled Waters Risk Assessment – Tier 2 Surface Water Assessment

7.14.1 The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point e.g. a surface water sample would be assessed against EQS only, and for Surface Water protection, the assessment point (AP) is in the Surface Water, after Dilution.

7.14.2 The results of the Tier 2 Surface Water Assessment (T2 EQS) CWRA are presented in Appendix D.5.6. Failures of the T2 WQS are summarised in Table 7-12.

Table 7-12 : AB – Summary of T2 EQS Exceedances

Contaminant of Concern	EQS	Result	Expl. Hole
Ammoniacal Nitrogen	0.04	0.12	SW BH AB043
		0.06	SW BH AB026
Copper	1	9	SW BH AB043
		9	SW BH AB021
		10	SW BH AB025
		7	SW BH AB026
		9	SW BH AB028
Zinc	10.9	11	SW BH AB025

7.15 Re-use of Soils

7.15.1 Introducing a soil material re-use strategy will be consistent with National Highways' commitment to incorporate sustainable methods into the design of projects as outlined in GG103 (Introduction and general requirements for sustainable development and design, 2019). The re-use of soil materials within the scheme will reduce quantities of material destined for landfill, waste generation, unnecessary costs, and unnecessary journeys.

7.15.2 In addition, the requirement to import fill materials (and associated costs) may also be reduced. This will assist with meeting National Highways' environmental sustainability goals, including minimising greenhouse gas emissions, reducing waste generation, using sustainably sourced materials, and being resource efficient and reflecting a circular approach to the use of materials.

7.15.3 Prior to excavations and re-use of the material, an appropriate re-use methodology and Materials Management Plan, and associated Verification Plan document, should be completed to enable the re-use of the material. The Verification Plan should identify how the placement of materials is to be recorded and the quantity of materials to be used, including a statement on how the use of the materials relates to the highway design. Verification testing results should be compared to re-usability criteria from a corresponding Series 600 Earthworks Specification and Verification Plan.

7.16 Waste Classification

7.16.1 A preliminary waste classification exercise has been undertaken in line with the guidance set out in the Environment Agency: Guidance on the Classification and Assessment of Waste Technical Guidance WM3 document (38) using the results obtained from the ground investigations to determine the likely waste classification of soils within the scheme and provide a likely List of Waste (LoW) code in the event they require to be discarded as a waste.

7.16.2 The Waste Assessment methodology is outlined in Appendix D.1. Soil quality data from the ground investigation was entered into the HazWasteOnline™ (39) hazard assessment tool.

7.16.3 A total of 189 soil samples (comprising 53 from Topsoil, 17 from Made Ground, and 119 from natural superficial deposits) have been assessed using the HazWasteOnline™ tool.

7.16.4 All soil samples were classified as Non-Hazardous.

7.16.5 The results of the HazWasteOnline™ assessment are contained in the report outputs presented in Appendix D.8.

8 Geotechnical Risk Register

8.1 Geotechnical Risk

8.1.1 The geotechnical risk register brings forward unusual hazards or risks in relation to the ground that were identified during development of the PSSR. Where these have been eliminated or mitigated to some degree by the latest ground investigation, the risk has been removed from the risk register or the risk rating has been adjusted as the case may be. The purpose of the register is to record unusual risks, so a number of generic risks identified in the PSSR will be readily mitigated by good design practice and do not warrant inclusion here.

8.1.2 Further risks may be identified and the risk register will be further developed in the detailed design and construction stages.

8.1.3 In the assessment which follows, each potential risk is identified and a risk rating is assigned. This is the rating **prior** to identification of risk consequence and suitable mitigation measures.

8.1.4 From the risk matrix in Table 8-1, it is possible to provide a quantitative figure or **risk value** (R) for each of the perceived geotechnical risks, using the expression:

Risk value (R) = Likelihood or probability (P) x Impact (I)

8.1.5 The likelihood ranges from 1 (extremely unlikely) to 5 (almost certain) and impact from 1 (minor) to 5 (catastrophic). The terms for impact relate to the potential to cause damage to assets and harm to people and are defined in Table 8-2.

Table 8-1 : Risk Matrix

Likelihood (P)		Impact (I)				
		1	2	3	4	5
		Minor	Moderate	Serious	Major	Catastrophic
1	Extremely Unlikely	1	2	3	4	5
2	Unlikely	2	4	6	8	10
3	Likely	3	6	9	12	15
4	Extremely Likely	4	8	12	16	20
5	Almost Certain	5	10	15	20	25

Table 8-2 : Potential Severity of Harm Occurring

Impact	Term	Description
1	Minor	Minor damage or loss (no human injury).
2	Moderate	Moderate damage or loss (slight injury or illness).
3	Serious	Substantial damage or loss (serious injury or illness).
4	Major	Major damage or loss (fatal injury).
5	Catastrophic	Catastrophic damage or loss (multiple fatalities).

8.1.6 The initial risk value assigned using Table 8-1 provides a risk classification as given in Table 8-3. Risk values and their classification are then graded from low to high. As noted in Table 8-3, the activity associated with the given risk value may be permitted as long as adequate controls are maintained and reviewed. However, medium risks will require additional control

measures and those identified as high are not acceptable and will require elimination or reduction by suitable measures in subsequent design.

Table 8-3 : Risk Classification

Risk Classification	
Low (1-8)	Ensure assumed control measures are maintained and reviewed as necessary.
Medium (9-19)	Additional control measures needed to reduce risk rating to a level that is equivalent to a test of “reasonably required” for.
High (20-25)	Activity not permitted. Hazard to be avoided or risk to be reduced to tolerable level.

8.1.7 Each of the identified risks at the time of writing is listed in Table 8-4 below. This register will be taken forward and developed in later stages of design, as described earlier. Table 8-4 lists each risk and states the rating before any control or mitigation is applied. The residual risk rating is then assessed, after application of appropriate measures. All residual risks must be low or medium following this process. The register is then useful as a tool to show the areas of design or development that present the highest perceived risks, allowing consideration of alternatives.

Table 8-4 : Risk Register

Risk No	Hazard /Risk	Risk Rating Before Control			Consequence	Risk Control Measures	Residual Risk		
		Likelihood (P)	Impact(I)	Risk(R)			Likelihood (P)	Impact(I)	Risk(R)
1	Historical development.	5	5	25	Potential for contaminated materials, particularly coal tars from highway construction and ground gases.	Ground investigation and identification of in situ remedial treatments or safe removal and disposal.	5	2	10
2	Mining – ground instability.	5	5	25	Settlement, movement and failure of new earthworks. Damage to structure foundations. Structure collapse.	Ground investigation to identify limits of works and zone of influence. Further GI to delineate limits of works, potentially geophysics. Design to keep earthworks alignment and structure positions clear of workings. Specialist geotechnical design of foundations.	2	5	10
3	Existing slope repairs and stabilisation works at Crackenthorpe.	4	5	20	New works may re-activate deeper ground instability, leading to construction period and later operational danger, cost and delay of partial closure and remedial work.	Alignment choice to provide adequate buffer to zone of influence of new works. Ground monitoring and suitable instrumentation to confirm design assumptions.	4	3	12
3a	Short design life for Stabilisation of Crackenthorpe	5	3	15	Failure of LA (CCC) to re-adopt existing A66 due to short design life	Re-appraise 2008 design to enable augmented/revised design life	2	1	2
4	Soft ground – localised peat and alluvium and compressible ground.	3	4	12	Failure of earthworks, road pavement degradation, unstable ground during construction.	Ground investigation – initial phase has not identified presence of extensive peat or alluvium, although this is expected near existing water courses. Further ground investigation needed to highlight occurrences on selected route and design measures to avoid, accommodate or treat/remove as necessary.	3	3	9
5	Existing Sandford Gabion wall.	3	3	9	Structural damage, undermining of foundations, collapse.	Design measures to consider proximity of wall and influence of any proposed construction. Design of protection - temporary or permanent works.	2	3	6
6	Existing culverts for watercourse crossings.	3	3	9	Structural damage, undermining of foundations, collapse.	Design measures to protect during extension ore replacement.	2	2	4
7	Wheatsheaf and Warcop existing retaining walls	3	3	9	Structural damage, undermining of foundations, collapse.	Design measures to consider proximity of wall and influence of any proposed construction. Design of protection - temporary or permanent works.	2	3	6
8	Warcop MOD facility – historical storage and operations, munitions, and fuel.	4	3	12	Potential ground contamination – fuel and gassing potential.	Further investigation as identified by latest geo-environmental model. Remediation of contaminated materials or excavation/disposal.	3	3	9
9	Embankment construction	4	3	12	Earthworks materials need to be suitable fills and, if not significant disposal/import/sustainability issues arise.	Further ground investigation to confirm initial assessment of materials. Initial investigation indicates high variability and potential for significant soil improvement requirements (e.g. lime and/or cement stabilisation). Higher strength (>50kPa) to be used in upper 1.0m of construction	1	3	3
10	Cutting construction	4	3	12	Long term stability of cutting slopes and maintenance. Layers/lenses of granular materials (even thin) resulting in groundwater discharge onto slope	Cutting slopes steeper than 1V:3H in glacial tills will be unstable. Maintenance of steep slopes presents risks to operatives. Cutting slopes to be designed for 1V:3H; where steeper by necessity of constraints, appropriate additional design (e.g. cutting face treatments) to be provided. Finished surface should be maintainable by remote controlled plant, e.g. grass cutting. Add counterfort drainage to cutting faces where granular lenses identified	1	3	3
11	Groundwater	3	3	9	High groundwater table mainly affecting temporary conditions during construction. Impact on permanent works.	Some areas of potentially high groundwater have been noted (4.5.44, 4.5.47, 4.5.49). Further GI and monitoring to assess requirements for temporary and permanent drainage.	3	2	6
12	Coal tar products in existing carriageway	4	3	12	Hazardous material (Class U2)	Road coring programme to ascertain presence and extent	4	2	8

9 Engineering Assessment

9.1 Scope and Objectives

9.1.1 In accordance with the requirements of CD622 - Managing Geotechnical Risk (1) the following section considers an Engineering Assessment of the scheme elements providing a description and justification of the geotechnical options that have been considered in the scheme development, providing justified engineering reasoning for the options considered.

9.1.2 The section considers both earthworks and structures and any specialist geotechnical measures that may be considered appropriate.

9.1.3 This section does not constitute a design, but a geotechnical appraisal.

9.1.4 Structures are considered first and are referenced in ascending chainage with assessment considering suitability of foundation type (deep or shallow). Similarly earthworks are referenced in ascending chainage.

9.2 Structures: Temple Sowerby to Appleby

9.2.1 Drawings presenting relevant geological information in the immediate vicinity of the structure obtained from the 2021 ground investigation with archive reference where appropriate and available are included in Appendix A. Relevant drawing numbers are: HE565627-AMY-HGT-S0405-DR-CE-000301 and HE565627-AMY-HGT-S0405-DR-CE-000302.

Bridges:

Spitals Farm Underpass – Ch 30300

9.2.2 An existing underpass that will be widened/ lengthened to accommodate the dualling.

9.2.3 It was originally constructed as part of the Temple Sowerby Bypass and is formed of driven sheet piles.

9.2.4 Geology: From relevant 2021 GI boreholes at BH KTB001 and TP KTB001; and archive boreholes from Temple Sowerby Bypass investigation nos: 16113604, 16113605 and 16113669 there is cohesive glacial till (GT_CO and GT_V) overlying weathered Penrith Sandstone at shallow depth (circa 1.5m). The sandstone is mechanically broken down to a sand and gravelly sand, sometimes being logged as granular till (GT_S) if disturbed by drilling as in BH KTB001 @ 2.1m bgl. Adjacent archive rotary boreholes clearly record weathered Penrith Sandstone.

9.2.5 SPT N_{60} values increase from 16 just into the weathered bedrock to 30 to refusal (>50). These values can be correlated to effective angles of internal friction of 33° to 37° respectively. At refusal (>50) internal angles of friction will be significantly higher. As a conservative minimum a safe bearing value of 800kPa may be assumed.

9.2.6 Box section construction would be perfectly suitable, although it may be considered that extending the existing sheet piled construction is more feasible. It should be noted that design toe levels were not achieved during construction for the abutments and inner sections of wingwalls despite pre-augering.

Priest Lane Underpass: Ch 31090

9.2.7 Geology: Comprises glacial tills of mixed lithologies – (interbedded cohesive and granular deposits) overlying the Penrith Sandstone Formation. The Penrith Sandstone is formed from a desert (windblown) sand and varies in strength from weak and poorly cemented to moderately strong, being used as a building stone in parts of Cumbria.

9.2.8 There is one relevant borehole from the 2021 ground investigation at the location BH KTB004 which revealed granular glacial till (GT_S) overlying sand. The borehole was terminated at 4.8m as at the time of investigation this structure had not been included in the design. Additional boreholes and trial pits to east and west all indicate sand at fairly shallow depth below either cohesive (GT_CO) or granular (GT_S) till.

9.2.9 The Sand is considered to represent either poorly cemented Penrith Sandstone or slightly weathered Penrith Sandstone.

9.2.10 The underpass itself will be through embankment with foundation levels at approximately 1.0m to 1.5m below existing ground level. This would offer a box structure foundation onto the granular glacial till.

9.2.11 Effective angles of shearing resistance are 31° to 34° at 1.5m bgl increasing to 41° in the Sand providing a conservative presumed bearing value of 700kPa.

9.2.12 This would be satisfactory for box section construction.

Cross Street Overbridge: Ch 31600

9.2.13 Ground Conditions: Relevant boreholes BH KTB010 and BH KTB011. Underlain by shallow sandy cohesive (GT_V) and cohesive (GT_CO) glacial tills to depth of approximately 1.50m to 2.5m bgl. These deposits are firm with undrained shear strengths of the order of 60kPa to 70kPa.

9.2.14 Below 1.5m to 2.5m both boreholes record deposits of either granular glacial till (GT_S) or sand overlying the Penrith Sandstone formation (PS) at 4.5m to 5.0m bgl. The sand and granular deposits are thought to be remnant /slightly weathered Penrith Sandstone.

9.2.15 Correlations with SPT N values indicates a minimum effective angle of shearing resistance for both the sand and granular till deposits (GT_S) of 35° rising to 42° maximum with a mean of 39°.

9.2.16 Groundwater was encountered in BH KTB010 at 1.0m rising to 0.6m bgl during drilling. Monitoring over 4 weeks showed a fairly steady level of between 0.6m and 0.8m bgl which would indicate semi-artesian conditions as the Penrith Sandstone is a recognised aquifer.

9.2.17 If shallow spread footings are considered design will need to ensure they do not exceed 200kPa bearing pressure.

9.2.18 Recommendation would be either spread foundation at 2.5m depth below existing GL onto the slightly weathered Sandstone. Conservative bearing values of 2000kPa would be achieved even on the granular material above the Sandstone. Some de-watering would probably be required during construction.

9.2.19 Alternatively, bored piling into the Penrith Sandstone would be satisfactory. Detailed design of the piles would be carried out by others.

Green Lane Bridleway Overbridge: Ch 32170

9.2.20 Ground conditions. The road alignment will be in cut approximately 6.0m deep. All nearby boreholes indicate cohesive glacial tills (GT_CO and GT_V) to between 5.0m (BH KTB015) and 10.0m (BH KTB013). The most relevant borehole is BH KTB014 which confirms Penrith Sandstone at 6.8m bgl below the cohesive till.

9.2.21 The till is soft to firm over the upper 1.5m to 2.0m increasing in strength with depth from mean values of undrained shear strength of 30kPa to 40kPa above 2.0m bgl to greater than 100kPa below 2.0m to 2.5m.

9.2.22 Abutment and pier foundations should be taken onto the Penrith Sandstone and could be either spread or if necessary bored piles depending on lateral loadings.

9.2.23 If a bankseat arrangement is used, they will be onto the cohesive tills and would need to be minimum 2.5m bgl for foundation level. Potential loads on any bankseat arrangement are not known, but although bearing would not be a problem settlement and more particularly differential settlement between pier/abutments and bankseats could be quite high (>50mm differential). Bankseats would therefore benefit from a piling solution.

Main Street Bridge: Ch 32800

9.2.24 Ground Conditions. Cohesive glacial tills overlying Penrith Sandstone Formation. The road will be in cut approximately 7m deep and base of cut is indicated to be very close to rock head of the Penrith Sandstone (BHs KTB019 and KTB020).

9.2.25 The tills are soft to firm over the upper 1.5m with undrained shear strengths in the range of 30kPa to 50kPa. Below 1.5m strengths increase to well in excess of 120kPa.

9.2.26 Abutment and pier foundations should be taken onto the Penrith Sandstone and could be either spread or if necessary bored piles depending on lateral loadings.

9.2.27 Excavations below road formation level are likely to require dewatering. BH KTB018 recorded ground water at 0.80m bgl during drilling which subsequently settled to 4.8m bgl during monitoring. This would indicate semi-artesian conditions from the Penrith Sandstone which is a recognised aquifer.

9.2.28 If a bankseat arrangement is used, they will be onto the cohesive tills and would need to be minimum 2.5m bgl for foundation level. Potential loads on any bankseat arrangement are not known, but although bearing would not be a problem settlement and more particularly differential settlement between pier/abutments and bankseats could be quite high (>50mm differential). Bankseats would therefore benefit from a piling solution.

9.2.29 As of November 2021 there is a proposal to move this structure to approximate chainage 32400. This allows the junction slip roads to be positioned remote from any influence of the historic mineworkings. One borehole at this approximate location (BH KTB016A) indicates that the underlying geology is very similar to the originally proposed location with SAND considered to represent weathered Penrith Sandstone at a depth of 3.2m bgl underlain by Penrith Sandstone at 5.0m bgl. The vertical alignment of the proposed highway indicates sub-formation will just be onto the SAND layer.

9.2.30 It is understood the new location will be referenced Fell Lane Bridge.

Sleastonhow Lane Bridge: Ch 33350

9.2.31 Ground Conditions. Superficial deposits are glacial tills, principally cohesive (GT_CO) and sandy cohesive (GT_V), but with lenses of granular tills (GT_S), overlying Penrith Sandstone at between 4.8m and 6.0m bgl.

9.2.32 The road will be in cut approximately 7m deep and road formation level will be close to the rockhead of the Penrith Sandstone. The nearest boreholes are BH KTB027 and KTB028 drilled for the original (Freeze D) alignment, therefore geology needs to be inferred pending further investigation during Phase 2 GI in 2022.

9.2.33 The cohesive tills are indicated to be stiff with undrained shear strengths exceeding 150kPa providing a conservative bearing value of 600kPa. If spread foundations are used for piers or abutments, bearing onto the stiff tills will be suitable and consolidation settlement will be less than 25mm. For a bankseat design again the cohesive tills would be adequate, but would require foundation levels at least 3.0m bgl to ensure high enough values of undrained shear strength.

9.2.34 Consolidation settlement would be unlikely to exceed 25mm, depending upon bankseat load (200kPa assumed currently). Therefore differential settlement between piers and bankseat would probably be acceptable at less than 15mm to 20mm maximum. Differential settlement between approach and bankseats will need to be less than 10mm over 3.0m.

9.2.35 Monitoring of water levels in BH KTB028 indicated dry conditions therefore groundwater control during excavation is unlikely to be required.

Troutbeck Crossing: Ch 34200

9.2.36 Ground conditions: This location was not investigated during the 2021 GI due to restricted access permissions at the time. Very little archive information exists and none actually on the flood plain. What little information there is currently is courtesy of British Gypsum with numerous boreholes to the north and east of the site and one water well adjacent to the eastern side of the flood plain. These all record fairly shallow glacial till (1.2m to 5m thickness) overlying Penrith Sandstone. No information is available for material characteristics.

9.2.37 A further historic water well borehole at Bridge End Farm in Kirkby Thore recorded 8.0m of dense sands and gravels overlying Penrith Sandstone.

9.2.38 No evidence of soft alluvial deposits has been indicated and the current assumption is that the site will be underlain by granular fluvial deposits of variable depth overlying the Penrith Sandstone, upper parts of which are likely to appear as sand or sand with gravels (mechanically weathered bedrock).

9.2.39 Both such deposits are likely to be suitable for spread structure foundations in terms of bearing, settlement and sliding resistance for lateral loadings.

Long Marton Bridge: Ch 35000

9.2.40 Ground conditions. Superficial deposits of cohesive glacial till (GT_CO) to approx. 7.5m overlying solid deposits of the Penrith Sandstone Formation.

9.2.41 The main line will be in cut and the overbridge approaches on low embankment.

9.2.42 The cohesive glacial till is soft to firm with undrained shear strengths of the order of 40kPa within the upper 1.5m, increasing to stiff with shear strengths exceeding 150kPa below that level.

9.2.43 Pier or abutment foundations would be founded on the Penrith Sandstone either as spread footing or possibly piled depending on a Designer choice.

9.2.44 For bankseat construction the cohesive tills are satisfactory in terms of both bearing and settlement providing they are founded at minimum 2.5m below existing ground level to ensure the upper weaker tills are avoided.

9.2.45 Relevant borehole KTA003 recorded dry conditions. Borehole KTA004 recorded a water strike at 7.9m bgl at rockhead. Post GI monitoring of borehole KTA004 recorded dry conditions. Therefore groundwater is not anticipated.

Crackenthorpe to Roman Road, Bridleway: Ch 36700

9.2.46 Geology: Underlain by predominantly cohesive glacial tills (GT_CO) with some interspersed lenses of granular till (GT_S). Bedrock was not encountered, although the boreholes were not scheduled for a structure investigation.

9.2.47 The cohesive tills are firm increasing with depth to firm to stiff and stiff. Undrained shear strengths at less than 1.5m bgl are approximately 50kPa but increase to over 100kPa at 2.5m.

9.2.48 The granular tills are indicated to have effective angles of friction between 35° and 43° from both SPT correlations and one shearbox test from BH KTA014 (not shown on attached section, but located some 150m to the east and south).

9.2.49 The underpass itself will be through embankment fill with foundation levels at approximately 1.0m to 1.5m below existing ground level. This would offer a box structure foundation onto the granular glacial till.

9.2.50 The cohesive soils will provide a conservative undrained bearing resistance of over 200kPa based on shear strength of 50kPa. Similar conservative bearing pressures are indicated for the granular materials.

9.2.51 It is recommended that an allowance for dig and replace be made to ensure softer areas of the cohesive till within the first 1.5m bgl can be removed and replaced with imported 6N or similar structural uplift.

Roger Head Farm Underpass: Ch 37290

9.2.52 Geology: Underlain by predominantly cohesive glacial tills (GT_CO). Bedrock was not encountered although the boreholes were not scheduled for a structure investigation.

9.2.53 The upper 1.5m of the till is soft to firm with undrained shear strengths not exceeding 60kPa, Below 1.5m bgl the undrained strengths increase rapidly to firm to stiff with undrained strengths in excess of 100kPa.

9.2.54 For box section design at bearing pressures not exceeding 100kPa a foundation level of 1.5m bgl would be satisfactory in terms of bearing. Consolidation settlement at such level is indicated to be some 30mm. Differential settlement is not expected to be significant and assessed at no more than 20% of total.

9.2.55 It is recommended that an allowance for dig and replace be made to ensure softer areas of the cohesive till within the first 1.5m bgl can be removed and replaced with imported 6N or similar structural uplift.

Culverts:

C00 Marlon Road Culvert

9.2.56 No direct information available. Archive information would indicate weathered Penrith Sandstone appearing as SAND being very close to ground level, probably overlain with sandy glacial till (GT_V).

C01 Priest Lane Culvert

9.2.57 Ch 31060. Presumed construction either box culvert or piped. Geology indicated to be granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C02 Priest Lane North 1 Culvert

9.2.58 Ch 31100. Presumed construction either box culvert or piped. Geology indicated to be granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C03 Priest Lane North 2 Culvert

9.2.59 Ch 31160. Presumed construction either box culvert or piped. Geology indicated to be combination of cohesive tills (GT_CO and GT_V) up to 3.0m to 4.0m in thickness overlying granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C04 New A66/Old Priest Lane Culvert

9.2.60 Ch 31380. Presumed construction either box culvert or piped. Geology indicated to be combination of cohesive tills (GT_CO and GT_V) up to 3.0m to 4.0m in thickness overlying granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C05 Old Priest Lane North Culvert

9.2.61 Ch 31400. Presumed construction either box culvert or piped. Geology indicated to be combination of cohesive tills (GT_CO and GT_V) up to 3.0m to 4.0m in thickness overlying granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C06 Old Priest Lane Culvert

9.2.62 Ch 31450. Presumed construction either box culvert or piped. Geology indicated to be combination of cohesive tills (GT_CO and GT_V) up to 3.0m to 4.0m in thickness overlying granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C07 Cross Street/Station Road West Culvert

9.2.63 Ch 31560. Presumed construction either box culvert or piped. Geology indicated to be combination of cohesive tills (GT_CO and GT_V) up to 3.0m to 4.0m in thickness overlying

granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C08 Cross Street/Station Road South Culvert

9.2.64 Ch 31600. Presumed construction either box culvert or piped. Geology indicated to be combination of cohesive tills (GT_CO and GT_V) up to 3.0m to 4.0m in thickness overlying granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C09 Station Road East 1 Culvert

9.2.65 Ch 31600. Presumed construction either box culvert or piped. Geology indicated to be combination of cohesive tills (GT_CO and GT_V) up to 3.0m to 4.0m in thickness overlying granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C10 Station Road East 2 Culvert

9.2.66 Ch 31620. Presumed construction either box culvert or piped. Geology indicated to be combination of cohesive tills (GT_CO and GT_V) up to 3.0m to 4.0m in thickness overlying granular material (GT_S) overlying SAND at shallow depth, considered to be weathered Penrith Sandstone.

C11 Cross Street Bridleway Culvert

9.2.67 Ch 31750. Presumed construction either box culvert or piped. Highway in cutting and geology at formation indicated to be SAND at shallow depth, considered to be weathered Penrith Sandstone. Overlying superficial deposits are a combination of cohesive tills (GT_CO and GT_V).

C12 Green Lane South Culvert

9.2.68 Ch 31850. Highway in cutting and geology at formation indicated to be cohesive glacial till (GT_CO).

C13 Green Lane North Culvert

9.2.69 Ch 31910. Highway in cutting and geology at formation indicated to be cohesive glacial till (GT_CO).

C14 Slurry Bed Culvert

9.2.70 Ch 32170. Highway in cutting and geology at formation indicated to be SAND considered to be weathered Penrith Sandstone. Overlying superficial deposits are cohesive tills (GT_CO).

C15 British Gypsum Access Road Culvert

9.2.71 Ch 32540. Main alignment in cutting. British Gypsum (BG) access road will be at grade and geology indicated to be a combination of cohesive and sandy cohesive (GT_CO and GT_V) glacial tills.

C16 Old Piggery/ Trout Beck Culvert

9.2.72 Ch 33060. No information available

C17 Old Piggery Culvert

9.2.73 Ch 32940. No information available.

C18 Sleastonhow Lane Culvert

9.2.74 Ch 33000. No direct information available. Geology conjectured to be sandy cohesive glacial till (GT_V) overlying Penrith Sandstone.

C19 Trout Beck/ Keld Sike Culvert

9.2.75 Ch 34100. No information available.

C20 Trout Beck South Culvert

9.2.76 Ch 34300. No information available.

C21 Trout Beck Across Culvert

9.2.77 Ch 34400. No information available.

C22 Long Marton Road Culvert

9.2.78 Ch 35100. Geology indicated to be clayey fine to coarse gravel (GT_S) to 0.9m overlying gravelly sandy clay (cohesive till GT_CO). Gravelly SAND was recorded at 1.3m bgl in TP KTA006 at the junction of Long Marton Rd and existing A66.

C23 & C24 to be confirmed

C25 Crackenthorpe to Roman Road West Culvert

9.2.79 Ch 36440. Geology anticipated as soft to firm cohesive glacial till (GT_CO).

C26 Crackenthorpe to Roman Road East Culvert

9.2.80 Ch 36660. Geology anticipated as soft to firm cohesive glacial till (GT_CO). The main alignment is on embankment up to 6.0m high, although settlement is not expected to be significant.

C27 B6542 Westbound Access Culvert

9.2.81 Ch 37850. Geology indicated to be soft to firm cohesive glacial till (GT_CO).

C28 Appleby Bypass Culvert

9.2.82 Ch 38170. Geology indicated as soft yellow brown cohesive glacial till (GT_CO) becoming firm to stiff below 1.2m bgl.

9.3 Structures: Appleby to Brough (Warcop)

9.3.1 Drawings presenting relevant geological information in the immediate vicinity of the structure obtained from the 2021 ground investigation with archive reference where appropriate and available are included in Appendix 10A. Relevant drawing numbers are: HE565627-AMY-HGT-S06-DR-CE-000301, HE565627-AMY-HGT-S06-DR-CE-000302 and HE565627-AMY-HGT-S06-DR-CE-000303.

Bridges:

Far bank End Underpass: Ch 40390

9.3.2 Relevant Boreholes: BH AB001, TP AB001, 19787836 (Historic)

9.3.3 The underpass level is approximately 144.5m AOD with some 7m of excavation.

9.3.4 Geology comprises glacial tills of both granular (GT_S) and cohesive (GT_CO and GT_V), the latter being a particularly sandy till. Both boreholes indicated Penrith Sandstone Formation at shallow depth although BH AB001 indicated a fairly weathered deposit down to 8.8m. Although referred to as 'weathered' this is mechanical weathering which essentially breaks down the weak silicate cementation which binds the individual sand particles of the sandstone. Drilling disturbances also have an effect upon the apparent integrity of the sandstone and may sometimes indicate a more 'broken' deposit.

9.3.5 Foundation level for the underpass is however going to be on at least fairly dense compact sand with little if any excavation through rock, certainly no hard rock.

9.3.6 Bearing onto the sand (weathered Penrith Sandstone) will be satisfactory as the effective angle of shearing resistance determined from shearbox tests on the granular tills above the sandstone varied between 33° and 38° which will provide a conservative bearing value of >1,000kPa. Any settlement will be immediate and complete by the end of construction.

9.3.7 Groundwater was encountered in BH AB001 at a depth of 4.0m, which settled during post fieldwork monitoring to 5.3m bgl. Excavation is therefore likely to encounter groundwater and drainage for such will need to be captured in the permanent works drainage systems.

Sandford Underbridge: Ch 41920

9.3.8 This structure will be constructed during excavation of a deep cutting as part of the Sandford Junction. Excavation will be through predominantly granular glacial tills to a depth of approximately 7m.

9.3.9 Below excavation level the soils are still predominantly granular, although lenses of cohesive tills (GT_CO) are recorded in boreholes AB009, AB010 and AB008 increasing in thickness from north to south.

9.3.10 Test results on the cohesive deposits indicate undrained shear strengths of at least 140kPa (BH AB010 @ 8.0m) derived from a single stage triaxial test. Correlation with SPT N values after Stroud and Butler indicate higher values of up to 260kPa.

9.3.11 Below the stiff till is a layer of granular till (GT_S) up to 2.0m thick immediately overlying Penrith Sandstone and Brockram (a conglomerate forming part of the Penrith Sandstone Formation). It is likely that this layer represents weathering of the Penrith Sandstone.

9.3.12 Foundations would be satisfactory as spread footings onto the stiff cohesive till at a depth of approximately 1.5m below excavated ground level (146m to 147m AOD). It is possible that the western abutment is more likely to encounter granular material, however the overall thicknesses of tills below foundation level and the top of the Penrith Sandstone (1.0m to 2.0m) would not produce a risk of major differential settlement between the abutments.

9.3.13 Groundwater was encountered in all boreholes initially at shallow depths, although post fieldwork monitoring records indicate a final steady level at between 8m and 11m bgl. For spread footing construction some groundwater control may be required.

9.3.14 Piled foundations are an alternative and the Penrith Sandstone would be perfectly suitable for bored piling. However such option is not considered necessary.

Wheatsheaf Farm Underpass: Ch 43150

9.3.15 Boreholes: BH AB018, BH AB019, BH AB019A, 612462 (Historic)

9.3.16 Geology. All boreholes record very soft cohesive silty clays to between 1.5m and 2.3m bgl. Moisture contents over the upper 1.5m are in excess of 25% with one recorded at 43% confirming very soft and potentially organic alluvial material.

9.3.17 Below 1.5m to 2.0m bgl a mixture of sandy cohesive (GT_V) and granular (GT_S) tills are recorded to a maximum recorded depth of 9.5m (BH 612462). Effective angles of shearing resistance for these materials can be derived from SPT N value correlations (Peck et al) and provide a range from 32° to 42° which will provide a conservative bearing value of 1000kPa. Settlement on granular materials will be immediate and complete by end of construction.

9.3.18 BH AB018 recorded a water seepage at 0.4m and 1.0m depth. No standing water was recorded.

9.3.19 Foundation suitable for box section provided top 1.5m soft material removed and foundations placed onto the granular tills.

Walkmill Underpass: Ch 43500

9.3.20 Nearest relevant boreholes are BH AB020, BH AB021, TP AB023 and TP AB025.

9.3.21 Geology: The boreholes and trail pits record a mixture of cohesive (GT_CO), sandy cohesive (GT_V) and granular (GT_CO) glacial tills.

9.3.22 The sandy cohesive tills in BH AB020 indicate soft to very soft material with undrained shear strengths between 25kPa and 35kPa to depths of over 5.0m. However, this material is quite granular and excess pore pressures will dissipate within a few days of loading, providing a foundation construction more akin to true granular materials. Effective angles of friction have been assessed by correlation with SPT N values (Peck et al) and indicate minimum values of 27° which will provide conservative bearing value of 430kPa.

9.3.23 No groundwater was encountered during drilling, although a seepage was recorded in TP AB024 at the top of the granular tills (GT_S).

9.3.24 Foundations should be taken to a minimum of 1.5m below existing ground level and a 300mm starter layer of 6C material be placed prior to construction. A geotextile between the tills and imported materials would be beneficial.

Moor Beck Crossing: Ch 43870

9.3.25 Nearest boreholes are BH AB023 and BH AB024 from 2021 GI. Additional information is provided by an historic borehole BH 617105.

9.3.26 Geology: All three boreholes record granular glacial till (GT_S) and coarse granular till/ fluvio glacial (FL_GT) to a depth of some 6.0m overlying cohesive tills. The depth of the cohesive till has not been proven at this stage, but extends to at least 9.0m bgl below the granular layer. It is described as firm to stiff although SPT N values of 14 and 13 in BH AB024 suggest undrained shear strengths of 60kPa to 65kPa, although one undrained triaxial test at 7.5m depth recorded a much softer layer.

9.3.27 The granular materials above the cohesive recorded SPT N values between 13 and refusal suggesting a minimum effective angle of shearing resistance of 32°. This would provide a conservative bearing value of 800kPa, suitable for shallow spread foundations. Although the cohesive materials below the granular could contain low strength zones, their depth would preclude any risk of failure. However, the transmitted load from spread foundations is indicated to induce consolidation settlement within the cohesive layers of approximately 50mm to 60mm. It is difficult to predict the level of differential settlement, but would suggest at least 20% of total is taken as differential settlement.

Warcop Village Overbridge (Option): Ch 44300

9.3.28 Geology: Comprises glacial tills of mixed lithologies – (interbedded cohesive and granular deposits) overlying the Penrith Sandstone Formation. The Penrith Sandstone is formed from a desert (windblown) sand and varies in strength from weak and poorly cemented to moderately strong, being used as a building stone in parts of Cumbria.

9.3.29 At the time of the ground investigation carried out during February to May 2021 this particular structure was not part of the proposed design, although the position of a proposed underbridge at Ch 44440 was investigated.

9.3.30 The detailed findings from the 2021 GI confirm cohesive and sandy cohesive Glacial Till (denoted GT_CO and GT_V respectively in borehole sections, Appendix 10A) to shallow depths between 2.1m and 3.0m. This is underlain with deposits of granular Glacial Till (GT_S) and sand. It is considered that both these deposits represent weathered Penrith Sandstone. Weathering of the sandstone is not shown to produce significant geo-chemical and mineralogical changes in the rock and appears more as a loss of cementation between the grains.

9.3.31 Groundwater levels were encountered at between 1.5m bgl (BH AB027) and 2.4m (BH AB028). Monitoring of standpipes did not indicate significant variation in levels and it can be assumed that this represents local water table level.

9.3.32 The cohesive till in this location is wet with moisture contents between 15% and 20%. Undrained shear strengths derived from SPT correlation indicate an average of 45kPa. One quick undrained triaxial test from BH AB027 at 2.0m depth gave a very low value of 10kPa.

9.3.33 The granular deposits below the cohesive tills provide very good strengths. Correlations with SPT provided effective angles of shearing resistance between 31° and 41°. Shearbox tests on samples from BH AB028 @ 3.0m returned a value of 38°.

9.3.34 The cohesive deposits are not likely to support the presumed foundation loads and a quick check confirms that foundation on the cohesive till would fail (ratio of resistance to load less than 0.6).

9.3.35 Spread footings on the granular deposits would provide a ratio of resistance to load greater than 5. However, this would require excavation to some 3.0m to 3.5m depth which would require dewatering due to the high water table. It is therefore considered that piles would provide the most suitable foundation solution.

9.3.36 Piling geometry and type would be assessed at detailed design stage once vertical and lateral loads are evaluated, but an estimate of length could be considered as 7m to 8m based on top of pile at approx. 1.5m max below ground level.

Warcop Village Underbridge (Option): Ch 44440

9.3.37 Details of geology as Warcop Overbridge above. This is likely to be a box section with consequently lower bearing capacity requirements, but possibly a shallower foundation depth for box construction. Although the sandy cohesive till recorded in BH AB028 indicates a low undrained shear strength, as discussed above in Walkmill Underpass, this material is expected to achieve a ‘drained’ condition quite quickly (during construction) and therefore drained parameters of effective angles of friction of 28° can be expected.

9.3.38 Conservative minimum bearing values of 200kPa can be expected for shallow box foundations on the sandy cohesive tills, quickly rising to in excess of 400kPa during

construction as excess pore pressures rapidly drain. Similar pre-construction precautions of some overdig and import of granular base fill would be prudent.

Flitholme Underbridge: Ch 45740

9.3.39 Relevant boreholes: BH AB035, BH AB036.

9.3.40 Geology: Borehole BH AB036 is the nearest to the structure and encountered sand from ground level to 3.7m. Below the sand granular glacial till (GT_S) was recorded to the base of hole at 5.3m bgl. BH AB035 similarly recorded sand, but at greater depth of 3.9m below deposits of variable tills both cohesive and granular.

9.3.41 Bridge foundations should be taken onto the sand which has a minimum derived effective angle of shearing resistance of 28°, to ensure differential settlement between founding one side on sand and the other possibly on cohesive tills is avoided. It is anticipated that the sand will be encountered on both sides at no more than 1.5m bgl.

9.3.42 Bearing values on the sand from the derived angles of shearing resistance provide a conservative value of 500kPa.

9.3.43 No groundwater was encountered during drilling.

Gatehouse Overbridge: Ch 46775

9.3.44 The nearest boreholes are AB042 and AB043 at CH 46720 so may be considered sufficiently close and suitable for appraisal.

9.3.45 There is a 10m height difference between the borehole elevations and slightly differing lithologies were identified.

9.3.46 BH AB042 is at 174m AOD and encountered cohesive glacial till throughout its depth of 15.0m

9.3.47 BH AB043 is at 164.8m AOD and encountered cohesive deposits to 6.9m where a thin layer of sand overlay the Penrith Sandstone Formation.

9.3.48 The upper 2.0m to 3.0m within BH AB042 is soft to firm with undrained shear strengths of less than 50kPa. This softer material extends deeper in BH AB043 to approximately 5.0m.

9.3.49 The road is in sidelong cut on the north side with a depth of approx.10.0m indicated. This would place the level of the northern abutment into stiff cohesive till with undrained strength of around 150kPa, suitable for spread foundations.

9.3.50 For spread foundations at the southern abutment formation levels would need to be almost 5.0m bgl to ensure adequate bearing onto stiff till.

9.3.51 However, total settlement at each abutment with proposed loadings of 300kPa would produce approximately 70mm and 25mm respectively, indicating a differential settlement in excess of 40mm.

9.3.52 For an integral structure this is considered too high and therefore a piled solution would be suggested.

9.3.53 Piling geometry and type would be assessed at detailed design stage once vertical and lateral loads are evaluated, but an estimate of length could be considered as 7m to 8m based on top of pile at approx. 1.5m max below ground level.

Turks Head Underpass

9.3.54 There are no boreholes at the location of this proposed structure as it was not included in design at the time of the preliminary 2021 GI. The nearest boreholes are BH AB046 and BH AB047 some 70m either side of the structure location. Both record soft to firm cohesive glacial tills (GT_CO) over their respective full depths of 8.0m and 6.45m.

9.3.55 Both SPT N value correlations after Stroud and Butler and laboratory undrained triaxial tests confirm soft to firm consistency with undrained strengths between 30kPa to 45kPa down to 3.5m bgl.

9.3.56 Below approximately 3.5m to 4.0m the material is stronger with undrained shear strengths indicated as greater than 80kPa.

9.3.57 Current proposed profile indicates excavation into natural ground will be required to accommodate the underpass. For a box section foundation on the cohesive till at say 3.0m below existing ground level a conservative presumed bearing value of 200kPa would be reasonable. Some consolidation settlement will occur and is estimated at approximately 50mm to 70mm depending on the extent of the softer till and should be fairly evenly distributed along the length of the structure with differential settlements limited to 20% of total.

West View Farm Overbridge: Ch 47780

9.3.58 This structure was not included within the provisions of the 2021 GI, being added during later options design. As it outlies the scope of the current GI information by some 300m it is difficult to conjecture the likely ground conditions.

9.3.59 Some archive boreholes from local water well drilling and the GI for Brough Bypass have been researched and although the information is limited to logs the indication is that the bridge location is underlain by cohesive glacial till with many cobbles and boulders to shallow depth with rock head recorded at 2.13m bgl in BH15623871.

9.3.60 Bedrock here is a reddy purple sandstone of Carboniferous age. To the south and west of the site a water well drilled in 2004 encountered stony cohesive till to 2.75m underlain by the Penrith Sandstone Formation.

9.3.61 Based on the information above spread foundations directly onto the sandstones of the Alston Formation (Carboniferous) would appear suitable.

Culverts:

Ketland Moor Culvert

9.3.62 Ch 40320. Construction of concrete box culvert.

9.3.63 Geology indicated to be weathered Penrith Sandstone, appearing as medium dense red brown slightly clayey sand and gravel (GT_S).

9.3.64 Depth of invert is anticipated to be reasonably shallow as the alignment is close to grade with a maximum 0.5m embankment for the westbound carriageway. Settlement is therefore expected to be minimal and complete by end of construction.

New Hall Farm Culvert

9.3.65 Ch 40540 Construction of concrete box culvert.

9.3.66 Similar geology to Ketland Moor with slightly clayey gravelly sand. Depth expected to be fairly shallow and no issues indicated with settlement.

Sandford Roman Road Culvert

9.3.67 Ch 41090 Construction of concrete box culvert.

9.3.68 Geology indicated to be cohesive till (GT_CO) described as soft to firm slightly gravelly sandy clay. No anticipated embankment loading and depth of burial likely to be shallow. Although geology indicated as soft to firm settlement is not expected to be significant. However, it would be prudent to prepare for at least 300mm dig and replace and bed the culvert onto an upfill granular material (6N).

Sandford Mire Culvert

9.3.69 Ch 41250 Construction of concrete box culvert.

9.3.70 Geology indicated to be soft to firm becoming firm cohesive and sandy cohesive tills (GT_CO and GT_V). Depth of burial anticipated to be in excess of 3m to 5m through the cohesive materials. Away from the highway towards the south (SUDS pond location) the ground is indicated to become sandy and gravelly (GT_V and GT_S).

Dike Culvert

9.3.71 Ch 42220 Portal frame on spread foundations.

9.3.72 Geology indicated to be shallow granular deposits (GT_S) overlying slightly weathered Penrith Sandstone at approximately 2m depth. Depths to the sandstone will vary, but will provide suitable foundation for spread footing construction.

Mill Leat Culvert

9.3.73 Ch 43810 Construction of concrete box culvert.

9.3.74 Geology anticipated as soft to firm cohesive and sandy cohesive till (GT_CO; GT_V) overlying dense orange brown clayey coarse sandy gravels. If invert levels are in the soft cohesive tills then some dig and replace with granular material is likely to be required. No embankment overload therefore settlement likely to be minimal.

Warcop Junction West Culvert

9.3.75 Ch 44140 Beam construction on spread foundation.

9.3.76 Geology anticipated to be mixture of granular and coarse granular deposits with horizons of soft cohesive tills. The granular deposits will be suitable for spread footings. Where soft cohesive horizons are encountered during excavation they will require over-excavation and replacement with suitable granular material. Groundwater is indicated to be shallow at less than 1.0m, so dewatering is likely to be a construction requirement.

Warcop Junction Ditch Culvert

9.3.77 Ch 44230 Construction of concrete box culvert.

9.3.78 Similar geology to preceding structure. Some soft cohesive tills and shallow groundwater are likely to provide some difficulties during construction. Where soft cohesive horizons are encountered they will require removal and replacement with acceptable granular.

Warcop Junction East Culvert

9.3.79 Ch 44290 Concrete beam deck on spread foundations.

9.3.80 Similar geology as previous Warcop structures. The granular materials will provide suitable bearing for spread foundations with little or no settlement. Any settlement will be complete by end of construction. High groundwater levels are again expected so some dewatering during construction is expected. Soft areas of cohesive material will require excavation and replacement.

Toddygill Bridge

9.3.81 Ch 44460 Piped culvert extension.

9.3.82 Geology indicated to be sandy clays (GT_V) overlying gravelly sands (GT_S) at 2.1m bgl. The upper horizons of sandy clays are indicated as soft to firm with undrained shear strengths correlated from SPT data indicated to be greater than 45kPa.

9.3.83 Groundwater is indicated at around 2m bgl at the top of the granular materials.

Brough Hill Culvert

9.3.84 Ch 45520 Concrete box section.

9.3.85 Geology indicated to comprise principally red brown sandy clays/ clayey sands (GT_V) with some horizons of more granular till (GT_S). Groundwater levels recorded at 5m to 6m bgl so unlikely to present any construction issues.

9.3.86 Shear strengths of the sandy clays are indicated as greater than 40kPa and are therefore likely to be suitable for foundation without the need for dig and replace.

Broomrigg Culvert

9.3.87 Ch 46450 Concrete Portal on spread foundations.

9.3.88 Geology indicated to be cohesive and sandy cohesive (GT_CO and GT_V) between 1.2m to 1.5m depth overlying various granular deposits (SAND; GT_S). BH AB039 recorded a lens of very coarse sands and gravels at 3.5m bgl which may represent a fluvio glacial meltwater channel.

9.3.89 The granular materials will be suitable as spread foundation. The soft cohesive material in the upper 1.2m will not be suitable.

Low Gill Extension

9.3.90 Ch 47500 Concrete box construction.

9.3.91 Geology indicated to be predominantly cohesive tills. BH AB048 records upper 2m of more granular material (GT_S), but engineering description shows there is a significant clay matrix.

9.3.92 Undrained shear strengths from hand vane and SPT correlations indicate values generally in excess of 50kPa (one low HV in TP AB059 of 38kPa). Such values will be suitable for box section foundation. The road alignment is in shallow cut, therefore it is likely formation levels for the culvert will be at least some 2m below existing ground level, where undrained shear strengths are likely to improve.

Bulliston Bridge Extension

9.3.93 Ch 47880 Concrete pipe extension.

9.3.94 Information on geology is limited to archive logs from Brough Bypass GI which suggests the ground is underlain by cohesive glacial till with many cobbles and boulders. From this it would appear that no issues should be encountered with the proposed 1050mm diameter pipe extension.

9.4 Earthworks: Temple Sowerby to Appleby

Introduction

9.4.1 The proposed route diverges north and east from the eastern end of Temple Sowerby Bypass and is constructed entirely offline joining with the western end of Appleby Bypass.

9.4.2 New junctions and sliproads are required for which little or no information is currently available. Once final alignment proposals are developed, corresponding earthworks proposals can be reviewed.

9.4.3 Earthworks sideslopes are proposed at 1V:3H. There may be opportunity to increase slope angles in the granular deposits where effective angles of friction are higher than in the cohesive deposits or by judicious application of counterfort face drainage. Values of potential changes are beyond the scope of this report and will be a focus of PCF Stage 5 detailed design.

Materials Overview

9.4.4 Material properties have been discussed at length in preceding sections. This appraisal discusses the types of materials with respect to overall proportionate quantities, probable percentages acceptable for general earthworks, pavement subgrades and slope stability. Where soil improvement or stabilisation may be required or desirable a brief discussion on the available techniques is presented.

9.4.5 Due to the large range of variables within any data set probability theory has been used to assess outcomes. A numerical count of data variables against a threshold risks omitting trend perceptions and can result in inaccurate predictions. In this case although the data sets are almost all skewed there are sufficient variables (>50) within any data set to satisfactorily use a normal distribution analysis.

9.4.6 Topsoil overlies the entire route. Although the thickness varies (Figure 9-1), probability indicates a 90% confidence of thickness at greater than 200mm.

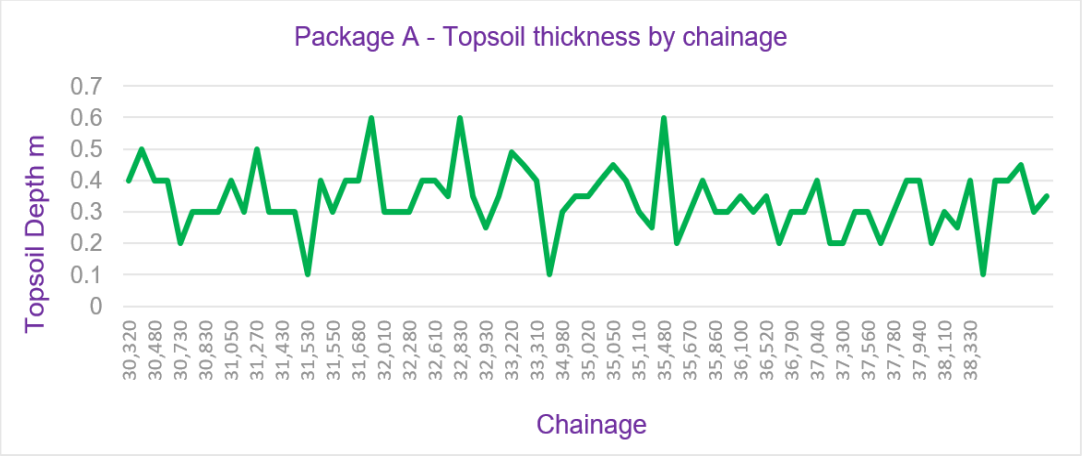

Figure 9-1 Topsoil thickness by chainage (Temple Sowerby to Appleby)

9.4.7 Again as discussed materials are a combination of cohesive and granular tills. Little lithological sequencing between types can be established, particularly over the western (Kirkby Thore Bypass) section, the materials appearing as sheets and lenses of varying lateral and vertical extents overlying Penrith Sandstone at relatively shallow depth. The sandstone often is weathered to appear as Sand and gravelly Sand. To the east of Trout Beck towards Appleby

cohesive tills (GT_CO) predominate. Based upon total exploratory depths during the 2021 ground investigation an estimate of proportion can be established. Based on plasticity criteria, the relevant proportions in SHW material classes 2A (wet cohesive) and 2C (stony cohesive) are also indicated. Such estimate is presented in Table 9-1.

Table 9-1 : Estimated proportions of materials (Temple Sowerby to Appleby)

	Materials				
Type	**Cohesive**		**Granular**		
Description/GEOL classification	Cohesive till GT_CO	Sandy cohesive till GT_V	Granular till GT_S	Sand SAND	Fluvio glacial deposits FL_GT
Estimated percentage of total materials	72.5%	12.1%	7.0%	8.0%	0.4%
Overall % each	84.6%		15.4%		
Of which 2A	49.8%				
Of which 2C	34.8%				

9.4.8 To assess levels of acceptability, the principal criteria upon which such is based needs to be established. The road is expected to require a Pavement Foundation Class of 3 as defined in CD 225 Design for New Pavement Foundations. This requires a foundation modulus of 200MPa and minimum Subgrade Surface Modulus (SSM) of 30MPa. Failure to establish the minimum value of SSM will require either excavation and replacement up to 1.0m or soil improvement. Although a minimum undrained shear strength of 40kPa is often cited as the lowest permissible value compatible with the trafficking and handling of cohesive materials a value of 50kPa is often applied to ensure variabilities during site works are safely accommodated.

9.4.9 Based on the above principles, a statistical analysis of the materials versus these two criteria gives a probability of percentage acceptability. Figure 9-2 presents the data for undrained shear strength. Figure 9-3 presents the analysis for SSM for cohesive materials based on a combination of laboratory CBR converted to modulus, plate tests converted to modulus and Lightweight deflectometer results. A chart of SSM versus advancing chainage for all test and material types is given in Appendix C.

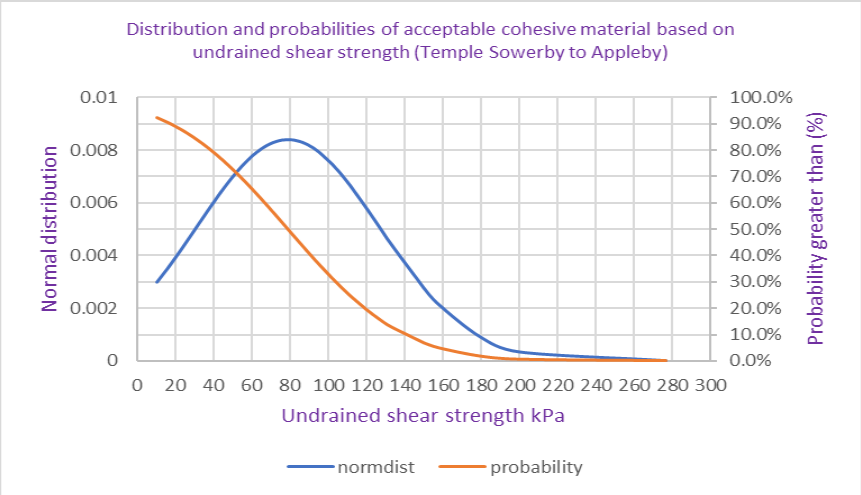

Figure 9-2 Distribution of c_u (Temple Sowerby to Appleby)

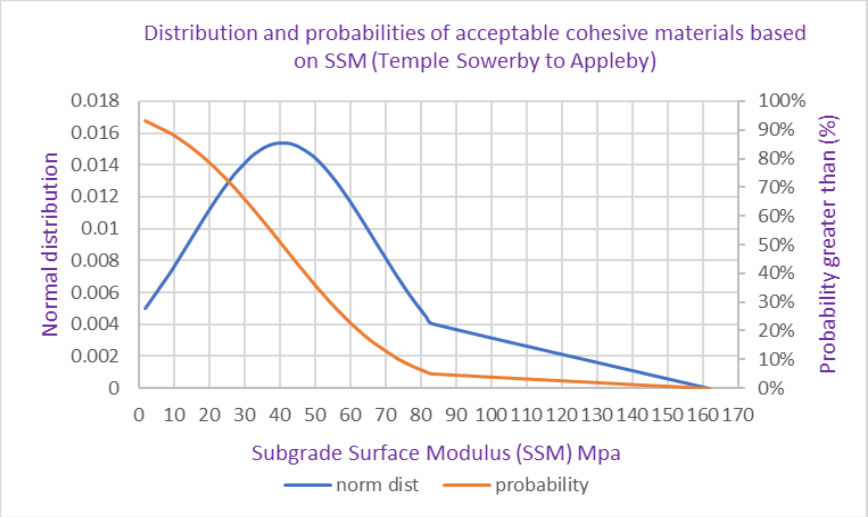

Figure 9-3 Distribution of SSM (Temple Sowerby to Appleby)

9.4.10 Reference to the charts indicates that approximately 80% of the cohesive material will be acceptable as general cohesive fill based on undrained shear strength (40kPa), but this reduces to approximately 66% if based upon SSM (30MPa). A judicious earthworks strategy for ensuring that the better materials are deployed in the upper levels of embankments should be developed.

9.4.11 Similar assessments of probability for the granular materials indicate that at least 85% of the granular materials (GT_S) will exceed SSM of 30MPa. All of the available SSM results for SAND exceeded 33MPa.

9.4.12 Where the granular materials have exhibited moduli below the threshold it is considered that this is due to localised low in situ dry densities. It may be possible to improve values by compaction (heavy proof rolling) following topsoil strip and excavation to a sub-formation level providing the excess moisture can be extracted (bled to surface) and removed (drained)

during compaction. Alternatively the material will require improvement with lime/ cement or classified as unacceptable.

9.4.13 Moisture contents do not exhibit a strong correlation with either depth or shear strength and although a trend can be observed the spread is very broad such that in the case of undrained shear strengths high moisture contents can frequently exhibit high strengths. Similarly, low shear strengths may not uncommonly be associated with low moisture contents. Although the moisture condition value (MCV) is not a definitive primary parameter, it is frequently used to manage acceptability on site and if MCV values are to be employed to assess acceptability further work is required to develop the moisture content/mcv relationship in association with MDD/OMC to establish limits equating to 95% compaction.

9.4.14 No presence of Class U1B nor U2 materials has been indicated.

Cuttings

9.4.15 Cuttings in general will be formed with 1V to 3H sideslopes. Top of crest drainage is to be provided particularly where existing topography falls towards the cutting and where composite materials of granular and cohesive are exposed in the face, counterfort drainage should be provided to ensure seepages from the granular materials are controlled, even where quite thin granular exposures occur. Toe of batter drainage should be in accordance with SHW Clause 500.

Ch 30000 to Ch 30150

9.4.16 Shallow cut of less than 1.0m. No direct information from the 2021 GI, but archive information from Temple Sowerby Bypass indicates weathered Penrith Sandstone appearing as SAND, overlain by up to 1.0m of sandy cohesive till (GT_V). SAND is likely to provide satisfactory SSM for pavement subgrade (>30MPa), refer to 9.4.11 above.

Ch 31450 to Ch 33900

9.4.17 Long cutting to the north of Kirkby Thore where the alignment transects a series of drumlins in cut to an average depth of 5.1m but rising to maximum depth of 9.5m.

9.4.18 Principally the material will be cohesive till (GT_CO) with some varied elements of the sandy cohesive till (GT_V). Penrith Sandstone is indicated at fairly shallow depth (5.0 to 6.0m bgl) overlain by weathered Penrith Sandstone and SAND. No hard rock excavation is expected.

9.4.19 Most of the SSM test results for cohesive and sandy cohesive materials (GT_CO, & GT_V) returned values greater than 30MPa.

9.4.20 Monitoring of groundwater post fieldwork indicates the principal ground water level to be within the (weathered) Penrith Sandstone at a level of around 118m AOD. This will be below the base of the proposed formation level generally. Localised seepages from the overlying till, particularly the more sandy and gravelly lenses are to be expected. Some of these could be

significant initially and it would be prudent to prepare for the installation of counterfort (herringbone) face drainage when such seepages are encountered.

9.4.21 Re-use of material is anticipated to be comparable to the overall view given above in 9.4.9. A perceived decrease of moisture content with depth in the cohesive materials is discernible, but it should be noted that some of the higher moistures are at depths greater than 2m bgl.

9.4.22 The excavated materials will be principally cohesive, but lenses and horizons of granular materials will be encountered sporadically and it will be difficult to separate different material types in the field for re-use.

9.4.23 Where SAND and weathered Penrith Sandstone is exposed at formation level the SSM values are expected to be satisfactory (>30MPa). There is the potential for stabilisation with cement or lime/cement to form a capping layer in situ.

9.4.24 For the cohesive materials most of the SSM results at depth (below 2.0m) from laboratory CBR tests indicated SSM values in excess of 30MPa (mean of 53MPa).

9.4.25 To the east of Ch 33350 no information is available, due to land access restrictions during the 2021 GI.

9.4.26 It is proposed to relocate the Main Street Overbridge and modify the route of the connecting sliproad north of the main carriageway to avoid the Kirkby Thore mineworkings completely. This will require a steepening of the northern cutting slope between approximate chainages Ch 32400 to Ch 32800 to 1V:2H. To ensure long term stability can be maintained, a reinforced/ strengthened earth or retaining structure solution would be required.

Ch 34600 to Ch 35250

9.4.27 Cutting to maximum depth of 6.7m. The material is indicated to be predominantly cohesive glacial till (GT_CO) with lenses of sandy cohesive till (GT_V). Bedrock of Penrith Sandstone is indicated to be marginally below the cutting base. The highest moisture contents are associated with the top 1.0m of ground. Undrained shear strengths vary from 10kPa to 85kPa, lower values being more associated with the sandy cohesive materials.

9.4.28 Investigation locations recorded slight water strikes at varying depths within the glacial till. These do not appear to be significant and do not represent a phreatic surface.

9.4.29 Re-use of material is anticipated to be comparable to the overall view given above in 9.4.9.

Ch 35700 to Ch 36500

9.4.30 Cutting to maximum depth 8.4m. The material is indicated to be wholly cohesive glacial till (GT_CO), although lenses of granular materials could be present.

9.4.31 No groundwater was encountered during drilling.

9.4.32 Re-use of material is anticipated to be comparable to the overall view given above in 9.4.9.

Ch 36900 to Ch 37200

9.4.33 Cutting to 5.8m maximum depth. All materials indicated to be firm cohesive glacial till (GT_CO). No groundwater recorded during drilling other than minor seepages in trial pits, although monitoring of standpipes post fieldwork recorded high water levels of approximately 1.0m bgl in BH KTA015. It is considered this could represent an erroneous result as the borehole is situated on high ground at 170m AOD.

9.4.34 Re-use of material is anticipated to be comparable to the overall view given above in 9.4.9.

Ch 37450 to Ch 38500

9.4.35 Cutting reaching maximum depth of 8.0m. All materials indicated to be firm cohesive glacial till (GT_CO). Water seepages were recorded during the investigation and post fieldwork monitoring recorded equilibrium water levels of 7.5m bgl in BH KTA018.

9.4.36 Re-use of material is anticipated to be comparable to the overall view given above in 9.4.9.

Embankments

Ch 30150 to Ch 31450

9.4.37 Embankment up to a maximum proposed height of 5.8m. The sub-formation is indicated to be principally weathered Penrith Sandstone appearing as SAND and granular till (GT_S). From Ch 31150 horizons of cohesive and sandy cohesive glacial till (GT_CO and GT_V) overlie the granular materials. Where cohesive materials are encountered following topsoil strip, a starter layer to ensure drainage will be required. SPT N values in the cohesive tills indicate undrained shear strengths greater than 45kPa. Stability and settlement issues are not considered problematic.

Ch 33900 to Ch 34550

9.4.38 Embankment to form the approaches to Trout Beck Crossing. No information is available for this section due to restrictions on land entry during the 2021 GI.

Ch 35250 to Ch 35650

9.4.39 Embankment to 7.5m in height. Sub-formation is expected to be principally cohesive till (GT_CO) with horizons of the sandy till (GT_V). SPT N values indicate higher undrained shear strengths for the tills than those obtained from triaxial testing. Even allowing for some soft areas during preparation, stability and excessive settlement of the earthworks are not considered problematic.

Ch 36500 to Ch 36850

9.4.40 Embankment to 6.9m maximum height. Underlain by predominantly cohesive glacial till (GT_CO), but with lenses of granular (GT_S) material. The majority of undrained shear strengths from SPT N value correlation and laboratory triaxial testing indicate values in excess

of 40kPa. Similarly values of coefficient of volume change are correspondingly low. Therefore earthworks stability and settlement are unlikely to be problematic.

Ch 37250 to Ch 37400

9.4.41 Short length of embankment to a maximum of 3.1m in height. Again underlain by predominantly firm to stiff cohesive glacial till (GT_CO), although softer areas have been identified (c_u less than 30kPa) underlying the deepest part of the embankment.

SUDS Ponds

9.4.42 SUDS ponds locations were investigated based upon proposed locations at the time of the 2021 GI. Five of the SUDS ponds positions were investigated by soakaway testing to the guidance given in the BRE Soakaway Design Digest 365. Of those only one returned a result, the remaining ones returning indeterminate values of infiltration rate as they were unable to determine seepage from 75% effective depth to 25% effective depth. The result for TP KTB008 returned an infiltration rate of only $3.7E^{-8}$m/s.

9.4.43 Most of the ponds locations are within cohesive and sandy cohesive (GT_CO & GT_V) materials. An assessment of permeability may be obtained from Hazen's formula relating permeability to the smallest particle size (D_{10}). The maximum permeability for the cohesive materials would be approximately $5E^{-6}$m/s based upon their maximum D_{10} sizes. The mean would be a lot lower.

9.4.44 Only those ponds encountering SAND or granular glacial till (GT_S) would act to disperse water with maximum values of permeability of approximately $5E^{-4}$m/s.

9.4.45 Revised pond locations will be investigated during a further stage of ground investigation.

9.5 Earthworks: Appleby to Brough (Warcop)

Introduction

9.5.1 The proposed route largely follows the line of the existing A66 with the current horizontal alignment from Chainage 39900 to Ch 42800 becoming the new eastbound lane following construction of the new westbound lane to the south of existing. Thereafter the proposed route diverges to the south being largely constructed offline.

9.5.2 New junctions and sliproads are required many of which have not been investigated during the 2021 GI as their routes and requirements had not been developed sufficiently at the time of fieldworks.

9.5.3 Earthworks sideslopes are proposed at 1V:3H. There may be opportunity to increase slope angles in the granular deposits where effective angles of friction are higher than in the cohesive deposits or by judicious application of counterfort face drainage. Values of potential

changes are beyond the scope of this report and will be a focus of PCF Stage 5 detailed design.

Materials Overview

9.5.4 Material properties have been discussed at length in preceding sections. This appraisal discusses the types of materials with respect to overall proportionate quantities, probable percentages acceptable for general earthworks, pavement subgrades and slope stability. Where soil improvement or stabilisation may be required or desirable a brief discussion on the available techniques is presented.

9.5.5 Due to the large range of variables within any data set probability theory has been used to assess outcomes. A numerical count of data variables against a threshold risks omitting trend perceptions and can result in inaccurate predictions. In this case although the data sets are almost all skewed there are sufficient variables (>50) within any data set to satisfactorily use a normal distribution analysis.

9.5.6 Topsoil overlies the entire route. Although the thickness varies (Figure 9-4), probability indicates a 90% confidence of thickness at greater than 200mm.

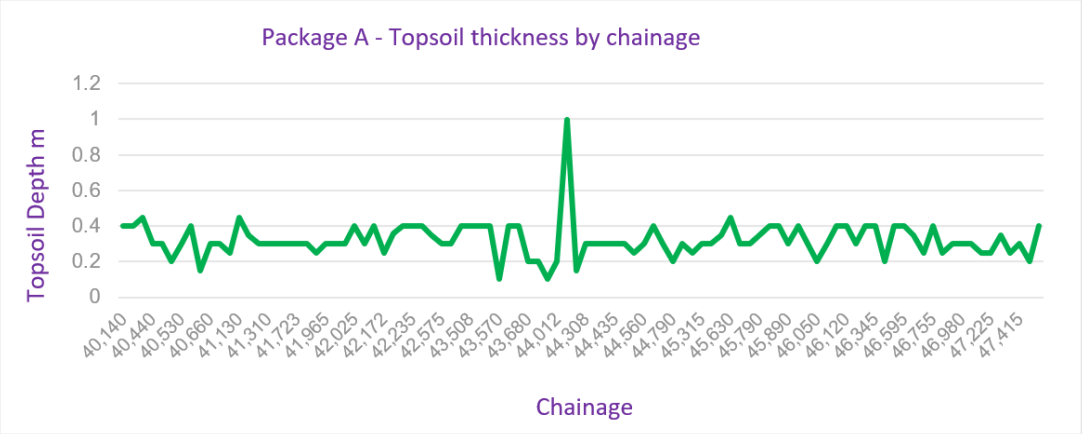

Figure 9-4 Distribution of topsoil thickness (Warcop)

9.5.7 Again as discussed materials are a combination of cohesive and granular tills. Little lithological sequencing between types can be established, the materials appearing as sheets and lenses of varying lateral and vertical extents. Based upon total exploratory depths during the 2021 ground investigation an estimate of proportion can be established. Based on plasticity criteria, the relevant proportions in SHW material classes 2A (wet cohesive) and 2C (stony cohesive) are also indicated. Such estimate is presented in Table 9-2.

Table 9-2 : Estimated proportion of materials (Warcop)

	Material				
Type	**Cohesive**		**Granular**		
Description/GEOL classn	Cohesive till GT_CO	Sandy cohesive till GT_V	Granular till GT_S	Sand SAND	Fluvio glacial deposits FL_GT
Estimated percentage of total materials	30.2%	25.0%	32.0%	7.8%	5.0%
Overall %	**55.2%**		**44.8%**		
Of which = 2A	**41.1%**				
Of which = 2C	**14.1%**				

9.5.8 To assess levels of acceptability, the principal criteria upon which such is based needs to be established. The road is expected to require a Pavement Foundation Class of 3 as defined in CD 225 Design for New Pavement Foundations. This requires a foundation modulus of 200MPa and minimum Subgrade Surface Modulus (SSM) of 30MPa. Failure to establish the minimum value of SSM will require either excavation and replacement up to 1.0m or soil improvement. Although a minimum undrained shear strength of 40kPa is often cited as the lowest permissible value compatible with the trafficking and handling of cohesive materials, a value of 50kPa is often applied to ensure variabilities during site works are safely accommodated.

9.5.9 Based on the above principles a statistical analysis of the materials versus these two criteria gives a probability of percentage acceptability. Figure 9-5 presents the data for undrained shear strength. Figure 9-6 gives the analysis for SSM for cohesive materials based on a combination of laboratory CBR converted to modulus, plate tests converted to modulus and Lightweight deflectometer results. A chart of SSM versus advancing chainage for all test and material types is given in Appendix C.

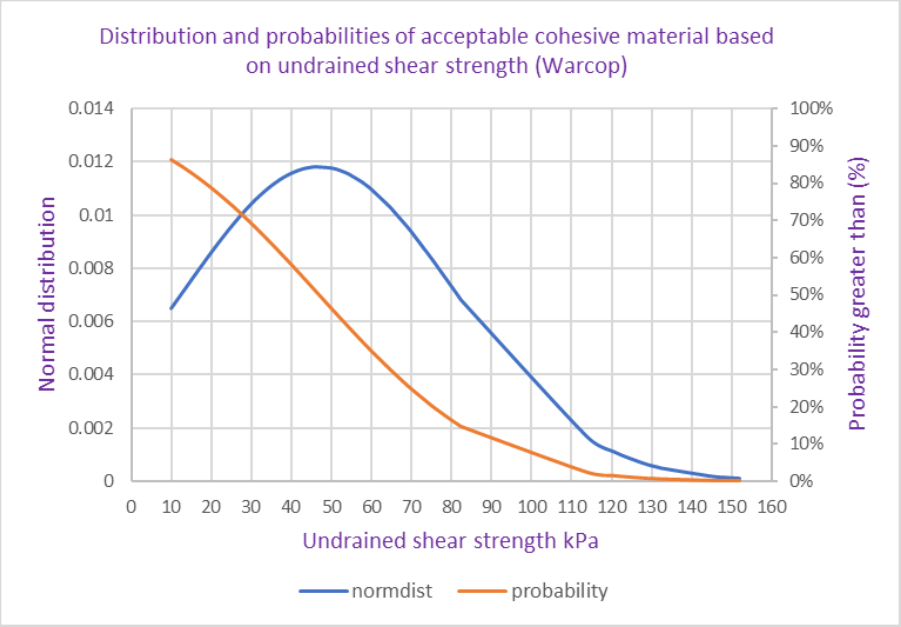

Figure 9-5 Statistical distribution of undrained shear strength (Warcop)

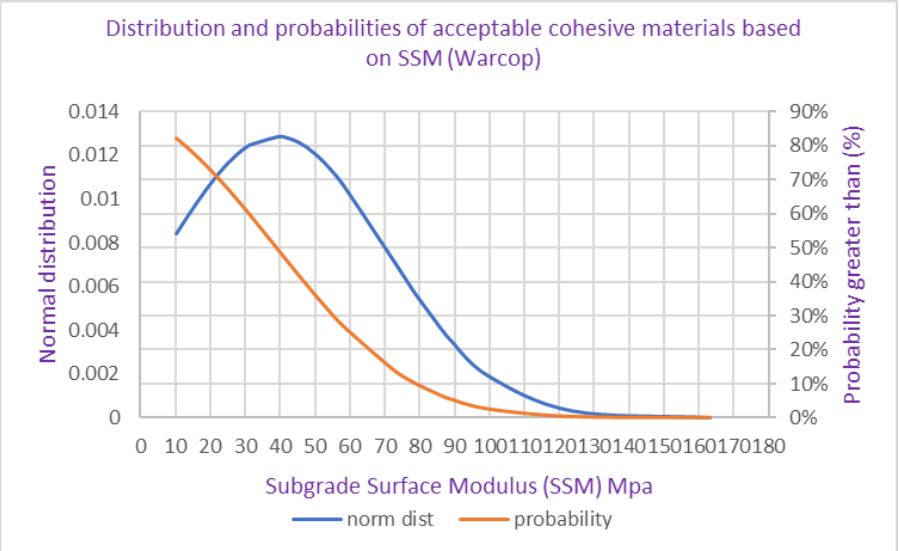

Figure 9-6 Statistical distribution cohesive materials based on SSM (Warcop)

9.5.10 Reference to the charts indicates that approximately 58% of the cohesive material will be acceptable as general cohesive fill and will provide the minimum required SSM of 30MPa. A judicious earthworks strategy for ensuring that the better materials are deployed in the upper levels of embankments should be developed.

9.5.11 Similar assessments of probability for the granular materials indicate that at least 75% of the GT_S materials will exceed 30MPa and 93% of the SAND material (overall proportion is 77%

granular materials exhibiting SSM greater than 30 MPa). Where the granular materials have exhibited moduli below the threshold it is considered that this is due to localised low in situ dry densities. It may be possible to improve values by compaction (heavy proof rolling) following topsoil strip and excavation to a sub-formation level providing the excess moisture can be extracted (bled to surface) and removed (drained) during compaction. Alternatively the material will require improvement with lime/cement or classified as unacceptable.

9.5.12 Moisture contents do not exhibit a strong correlation with either depth or shear strength and although a trend can be observed the spread is very broad such that in the case of undrained shear strengths high moisture contents can frequently exhibit high strengths. Similarly, low shear strengths may not uncommonly be associated with low moisture contents. Although the moisture condition value (MCV) is not a definitive primary parameter, it is frequently used to manage acceptability on site and if MCV values are to be employed further work is required to develop the moisture content/mcv relationship in association with MDD/OMC to establish limits equating to 95% compaction

9.5.13 No presence of Class U1B materials has been indicated. Although not confirmed coal tar binder, a Class U2 material, is considered likely in the lower levels of the existing A66 carriageway. The existing carriageway will be realigned to form the new eastbound carriageway and tar bound material will be required to be identified and removed from site.

Cuttings

9.5.14 Cuttings in general will be formed with 1V to 3H sideslopes. Top of crest drainage is to be provided particularly where existing topography slopes towards the cutting and where composite materials of granular and cohesive are exposed in the face, counterfort drainage should be provided to ensure seepages from the granular materials are controlled even where quite thin granular exposures occur. Toe of batter drainage will be required in accordance with SHW Clause 500.

Ch 39900 to Ch 42075 Eastbound

9.5.15 The route leaves the existing eastern end of the Appleby Bypass with the construction of a new westbound lane to the south of the existing A66. The existing A66 will be reworked with some adjustments to vertical alignment to form the eastbound lanes.

9.5.16 The first 2.15km eastbound to approximate chainage 42075 more or less follows the existing vertical alignment with slight modifications to elevation as shown below.

Table 9-3 : Warcop eastbound 39900-42075

Chainage from (m)	Chainage to (m)	Cut max (m)	Subgrade
40250	40650	0.13	GT_S
40750	41050	0.58	GT_S

41300	41450	0.66	GT_CO/GT_V
41650	42075	0.88	GT_V /GT_S

9.5.17 Excavated material will be principally bituminous road construction and can be re-used. However, due to the age of the pavement, lower layers of surfacing may well reveal tar based products. An extensive programme of investigative road coring will be planned for incorporation into Phase 2 GI. Any Class 6 materials to SHW Clause 600 or materials to Clause 800 will equally be acceptable for re-use.

9.5.18 Subgrade as far as Ch 41000 is indicated to be either weathered Penrith Sandstone (PS_W) or an ice reworked till derived directly from the Penrith Sandstone appearing as a medium dense reddish brown gravelly sand with some clay. The material has been classified as Granular (GT_S).

9.5.19 For pavement design values of subgrade surface modulus (SSM) derived from laboratory CBR tests and in situ plate load tests range from 43MPa to 47MPa.

9.5.20 From Ch 41300 to Ch 42050 the subgrade is expected to be predominantly cohesive and sandy cohesive glacial till (GT_CO and GT_V). Both materials exhibit similar parameters and record SSM values from 10MPa to 33MPa. Based upon those, either over excavation and replacement will be required or improvement of the subgrade with lime or lime/cement to achieve a minimum SSM of 30MPa.

Ch 41960 Sandford Junction

9.5.21 Cutting associated with the construction of Sandford Junction. The maximum depth is indicated to be some 10.0m, although average depths are closer to 8.0m. North of the existing road the cut is indicated to be through predominately granular (GT_S) material, but feathers into more cohesive material to the south of the existing highway. Most of the cohesive material is indicated to be firm to stiff with undrained shear strengths from laboratory triaxial and SPT N correlation being in excess of 100kPa with one low result of 30kPa.

9.5.22 Groundwater levels were recorded in both the overburden and the bedrock. Water levels during monitoring were at 2m to 3m below ground level in the superficial deposits, therefore seepage during excavation will be likely.

Ch 43600 to Ch 43700 All lanes

9.5.23 Short section of shallow cut to maximum depth of 0.54m. Subgrade is expected to be sandy cohesive glacial till (GT_V). SSM values are between 11MPa and 29MPa, therefore subgrade improvement will be required to ensure a minimum SSM of 30MPa can be achieved. Excavated material classifies as Class 2A and will require improvement by the addition of lime for re-use in embankments.

Ch 43900 to Ch 44200 Eastbound

9.5.24 Cutting to 6.4m in height. This is a revised option following the 2021 GI with the nearest boreholes (BHs AB023, 024 and 025) indicating granular deposits. However, the cut section runs along the lower edge of a drumlin and is likely to be more cohesive. No borehole information on groundwater levels is available.

Ch 44300 Warcop Junction

9.5.25 This option has been added post the 2021 GI so very little information is available. The slip road to the north forms a cut some 15m deep into the base of a drumlin forming the existing sidelong ground behind the disused MOD tank refuelling depot. Deposits can only be conjectured as probably cohesive till.

Ch 44700 to Ch 44950

9.5.26 The route for both carriageways will be in cut to maximum depth of 2.4m. The material is indicated to be cohesive (GT_CO) and sandy cohesive glacial till (GT_V). SSM values from laboratory CBR tests and in situ plate loading tests and Lightweight Deflectometer results record a mean of 59MPa with one low value of 17MPa.

Ch 45100 to Ch 45600

9.5.27 The cutting is up to a maximum depth of 4.6m and will be excavated through a varying mixture of both cohesive and granular glacial tills (GT_CO, GT_V and GT_S). Due to the variable distribution of both material types it is likely that mixing of cohesive and granular materials is unavoidable during bulk excavation. The cohesive materials exhibit low values of SSM, between 10MPa and 31MPa, conversely the granular (GT_S) materials exhibit values between 28MPa and 174MPa with a mean of 70MPa. Mixing of the materials may be beneficial and result in an overall level of acceptability without the need for improvement.

9.5.28 Groundwater levels during monitoring were recorded at between 3m and 4m below ground level.

Ch 46000 to Ch 46300

9.5.29 Cutting to a maximum depth of 2.85m principally through cohesive tills (GT_CO and GT_V). Of the results available, 50% of the materials have SSM less than 30MPa.

9.5.30 No groundwater was encountered.

Ch 46650 to Ch 47500

9.5.31 The maximum depth of the cutting is 6.3m and is indicated to be cut through cohesive materials. Undrained shear strengths determined by both triaxial and hand vane record values between 16kPa and 145kPa with an average of 71kPa. Conversely, only 50% of the SSM results indicated values in excess of 30MPa.

9.5.32 Groundwater was encountered in some of the boreholes (BH AB044 @ 1.04m bgl, and BH AB045 @ 1.4m bgl). No groundwater was encountered in the trial pits (TP AB056 and TP AB059).

Embankments

Ch 39900 to Ch 41150 Westbound

9.5.33 For the new carriageway, a shallow embankment to a maximum height of 2.8m is required, forming the westbound lane. Existing ground is expected to be all weathered Penrith Sandstone/ granular till (GT_S).

Ch 41400 to Ch 41650 Westbound

9.5.34 A shallow embankment up to 2.75m in height. Sub-formation anticipated as sandy cohesive till (GT_V).

Ch 42100 to Ch 43500 Westbound

9.5.35 Embankment forming westbound lane up to 4.3m high at western end (Ch 42200) to a maximum of 12.9m high at Ch 43200. In the west existing ground is indicated to be principally granular (GT_S) till underlain by weathered Penrith Sandstone. Further east the existing ground becomes cohesive and sandy cohesive, but underlain at fairly shallow depth (2.5m to 3.0m) with granular materials (GT_S and some FL_GT noted). Granular starter layers (or equivalent) will be required.

Ch 43700 to Ch 44500

9.5.36 Shallow embankment up to 1.3m in height eastbound and 1.1m westbound. Sub-formation indicated to be granular deposits. This shallow embankment replaces an earlier design used during the 2021 GI works. Previously the embankment was proposed as much higher and aligned to the south of the current position. Investigation positions therefore appear displaced to the south.

Ch 44800 to Ch 45200

9.5.37 Embankment up to 4.1m in height. Sub-formation indicated to be sandy cohesive glacial till (GT_V).

Ch 46350 to Ch 46600

9.5.38 Embankment reaching maximum height of 5.2m on the eastbound side and less than 4.0m westbound. Sub-formation indicated to be cohesive and sandy cohesive tills overlying granular tills at shallow depth.

SUDS Ponds

9.5.39 All of the SUDS ponds positions investigated returned indeterminate values of infiltration rate based upon the guidance give in the BRE Soakaway Design Digest 365, as they were all

except TP AB039 unable to determine seepage from 75% effective depth to 25% effective depth. The results for TP AB039 returned only $3.5E^{-6}$m/s.

9.5.40 The SUDS ponds therefore are not expected to drain, but will form attenuation ponds with outflows constructed to available watercourses.

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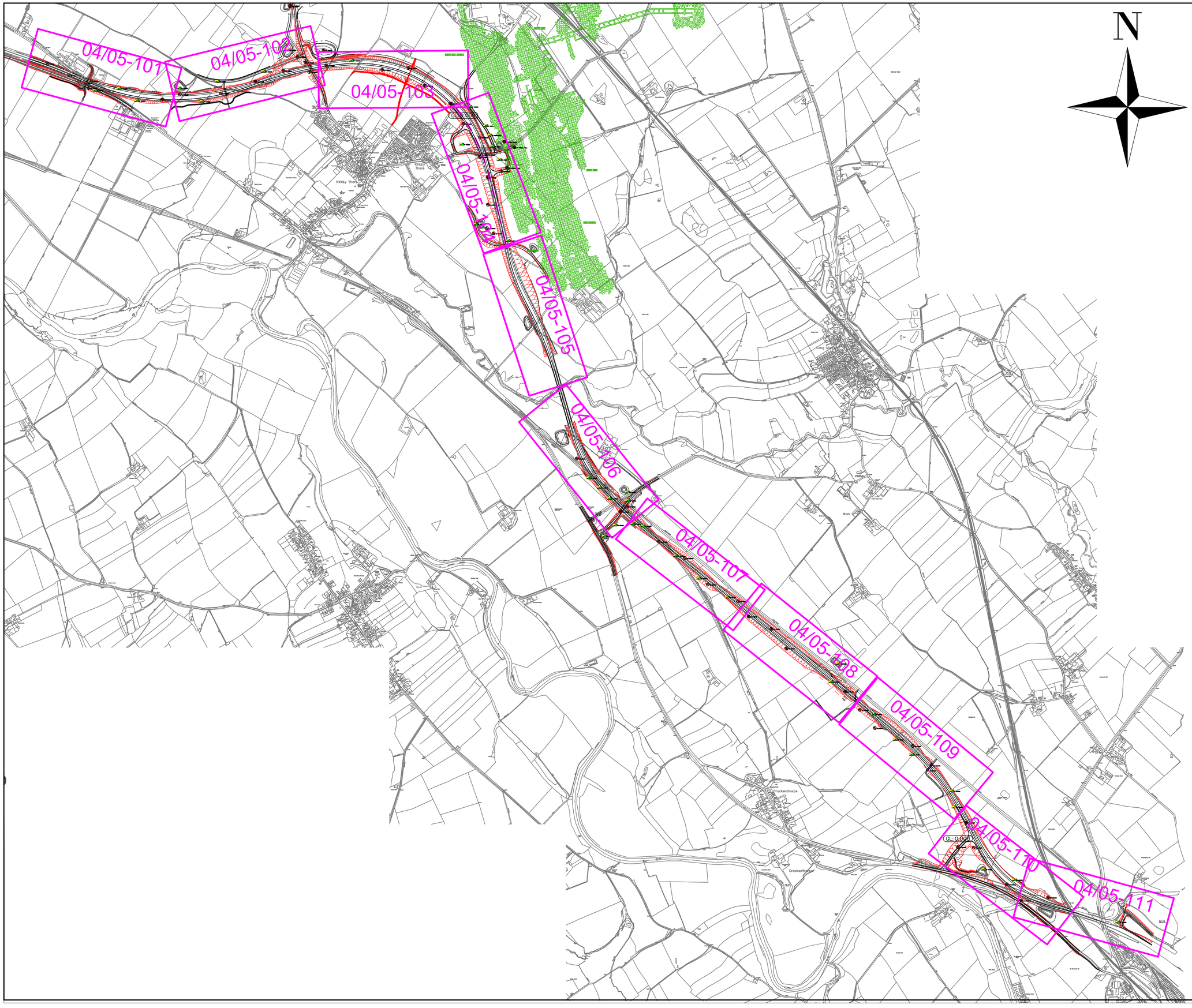
Appendices

A Drawings

A.1 Temple Sowerby to Appleby: Geological with Long Sections



Key to all Geotechnical Drawings

- HDTP — Hand Pit
- WS — Window Sample
- TP — Trial Pits
- BH — Boreholes
- BH — Historic Boreholes
- Water level
- Water strike
- 0405-108 — Scheme no–drawing no

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby
GIR key to drawings

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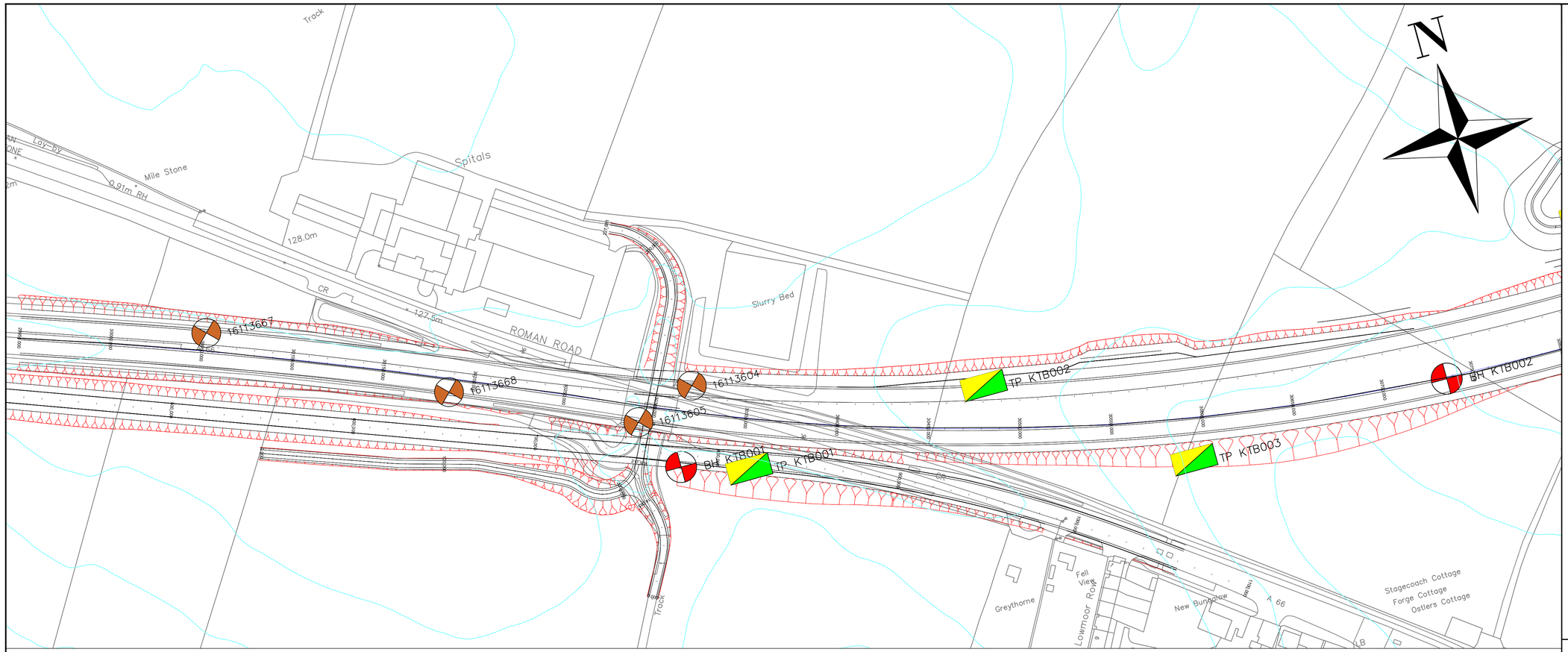

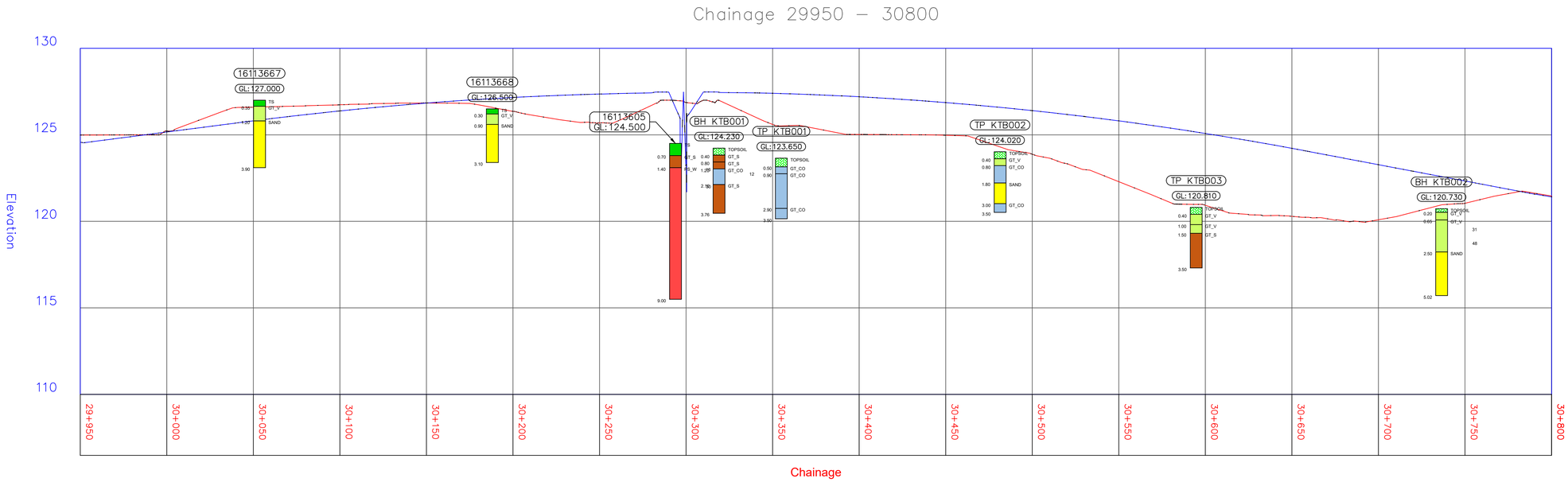

Legend		
	TOPSOIL	Topsoil
	MG_CO	Made Ground – Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
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	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

Revision					
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Project Name
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Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 1 of 11

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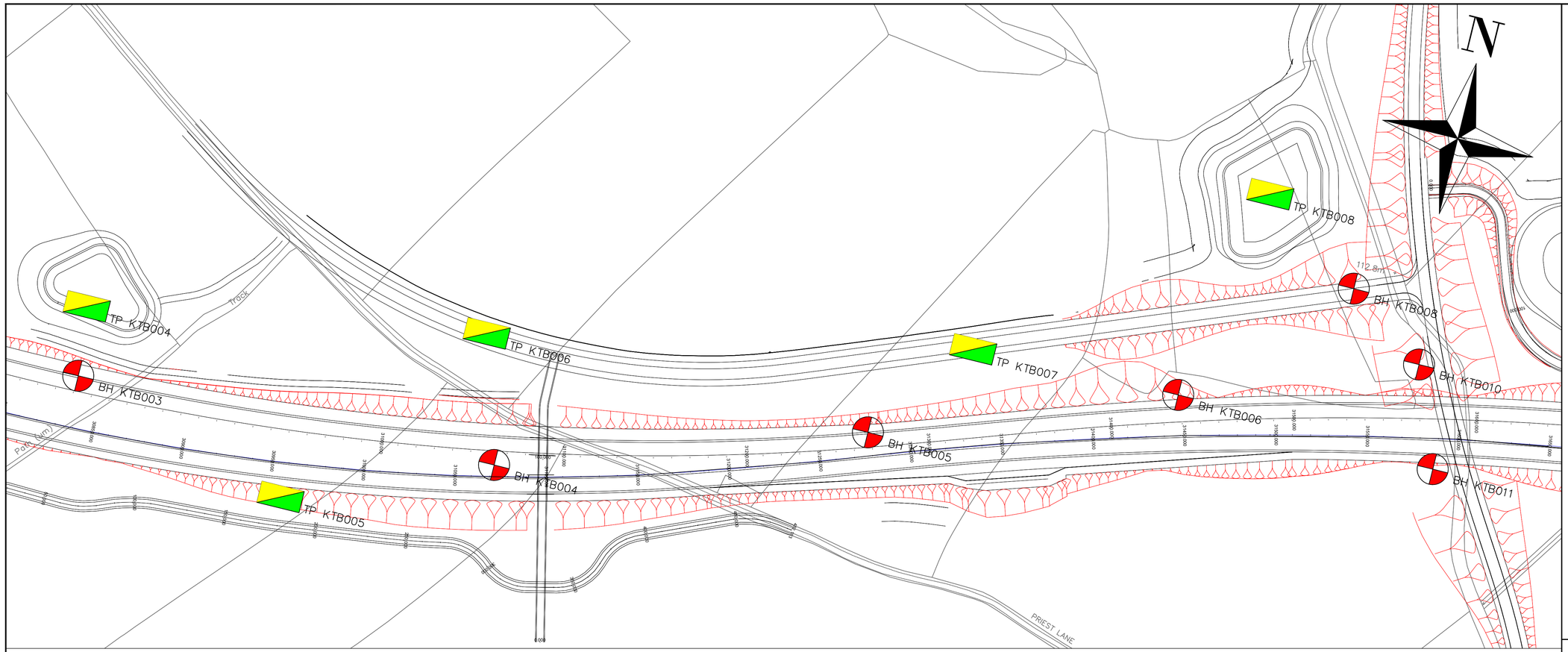

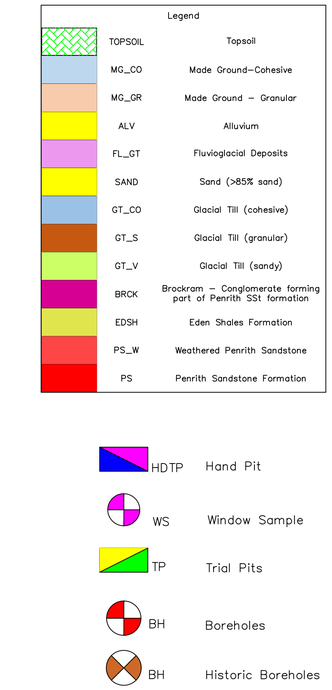

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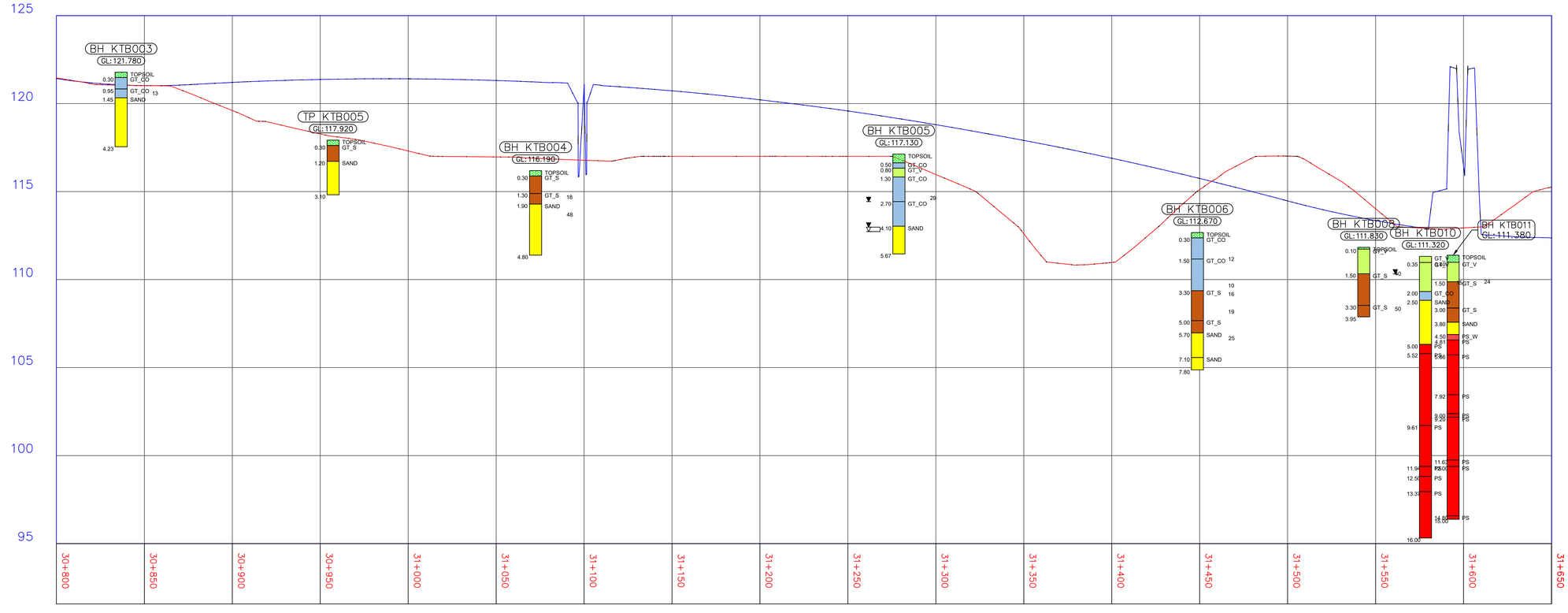

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Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 2 of 11

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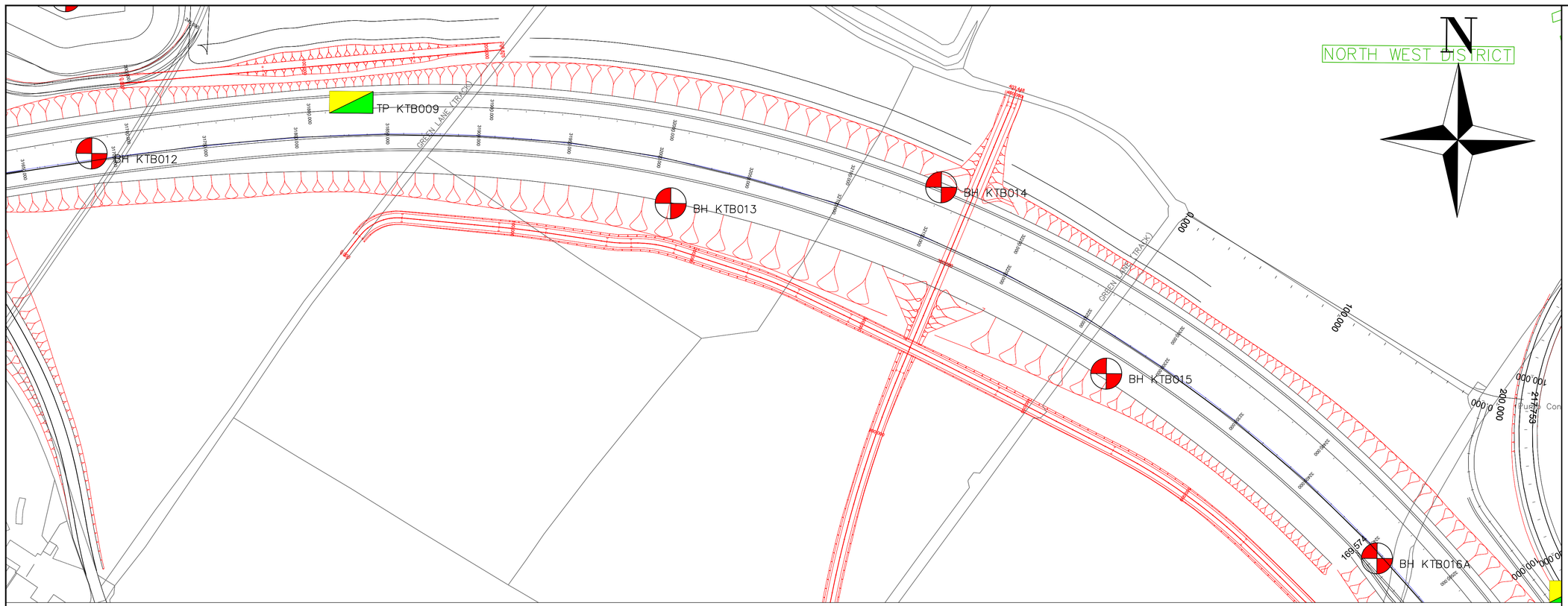

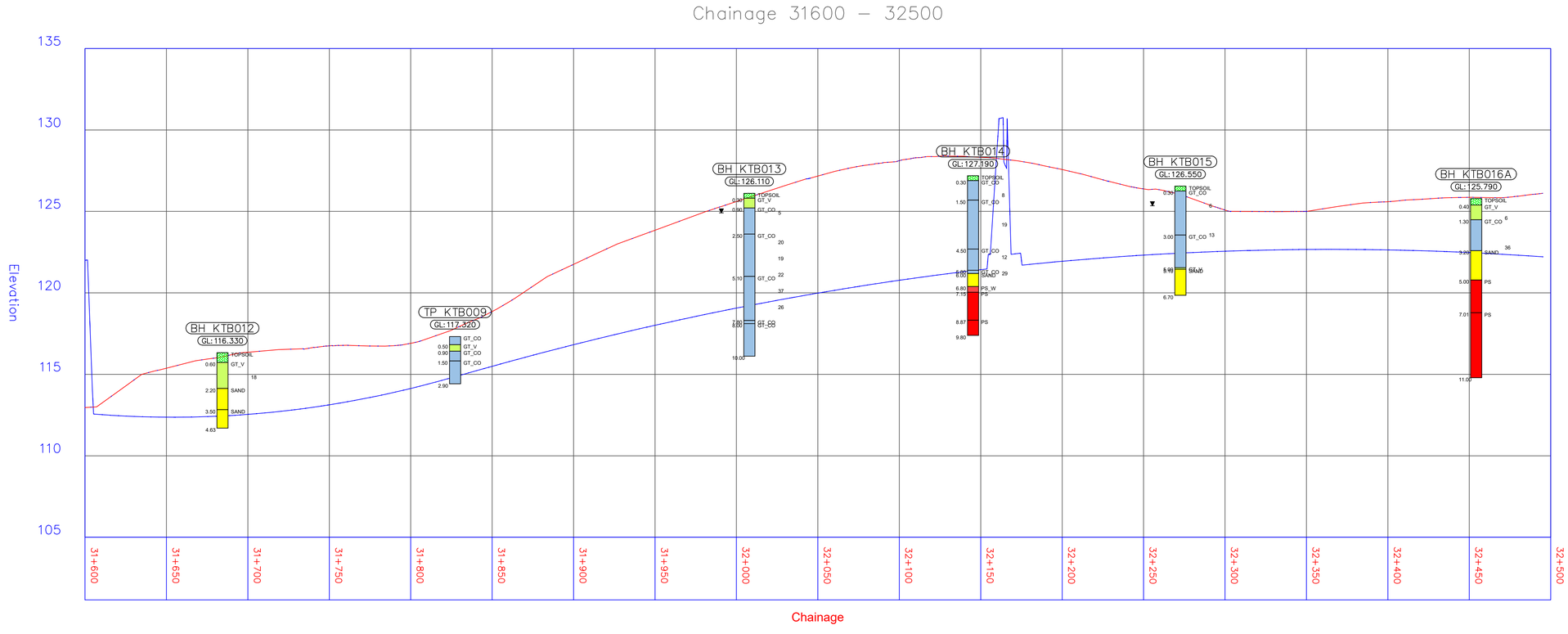

Legend		
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HDTP	Hand Pit					
WS	Window Sample					
TP	Trial Pits					
BH	Boreholes					
BH	Historic Boreholes					

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Project Name
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Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 3 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
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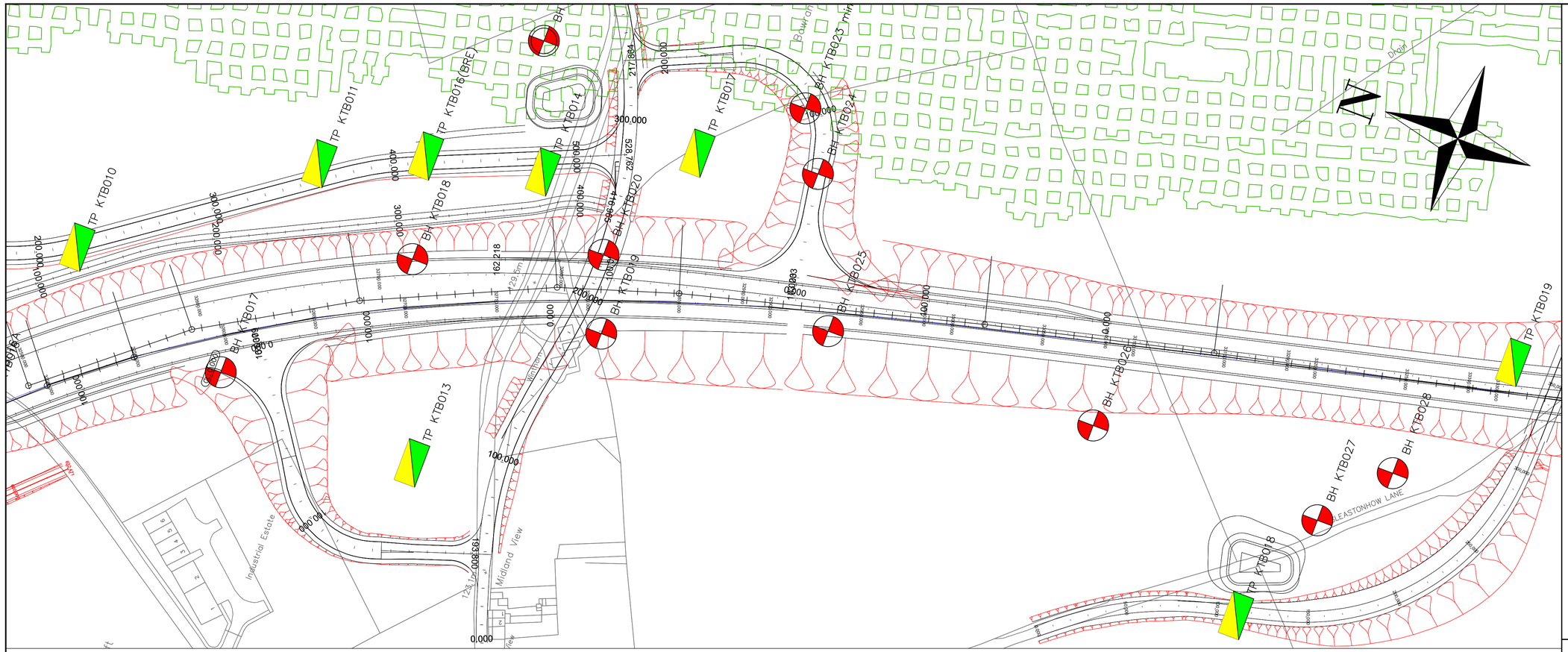

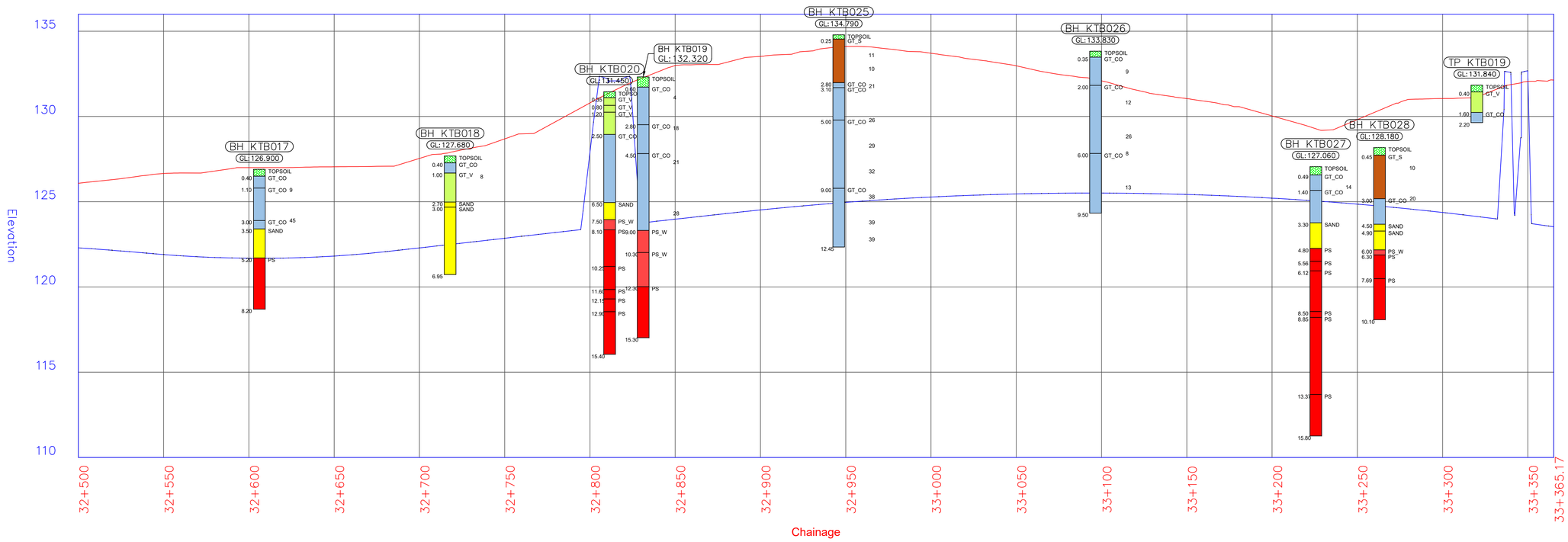

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BH Historic Boreholes

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Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 4 of 11

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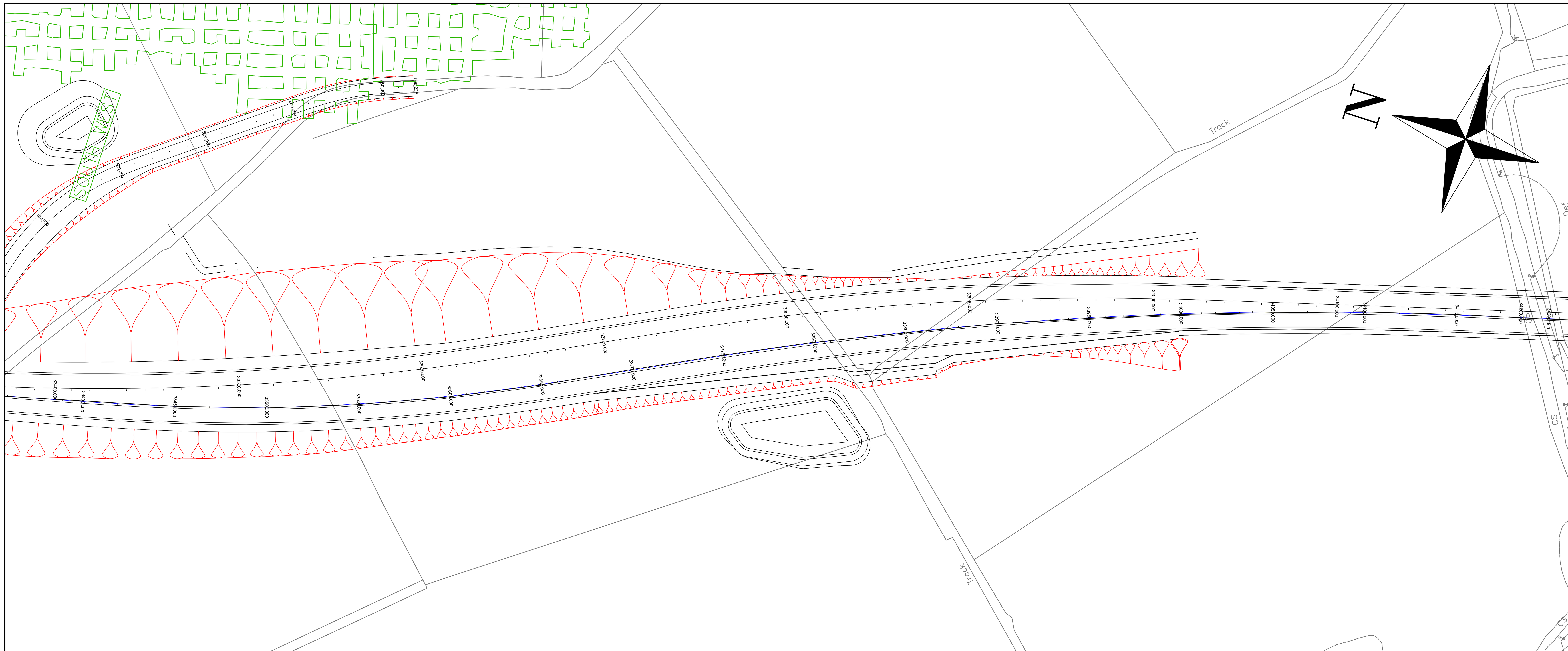

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BH	Historic Boreholes

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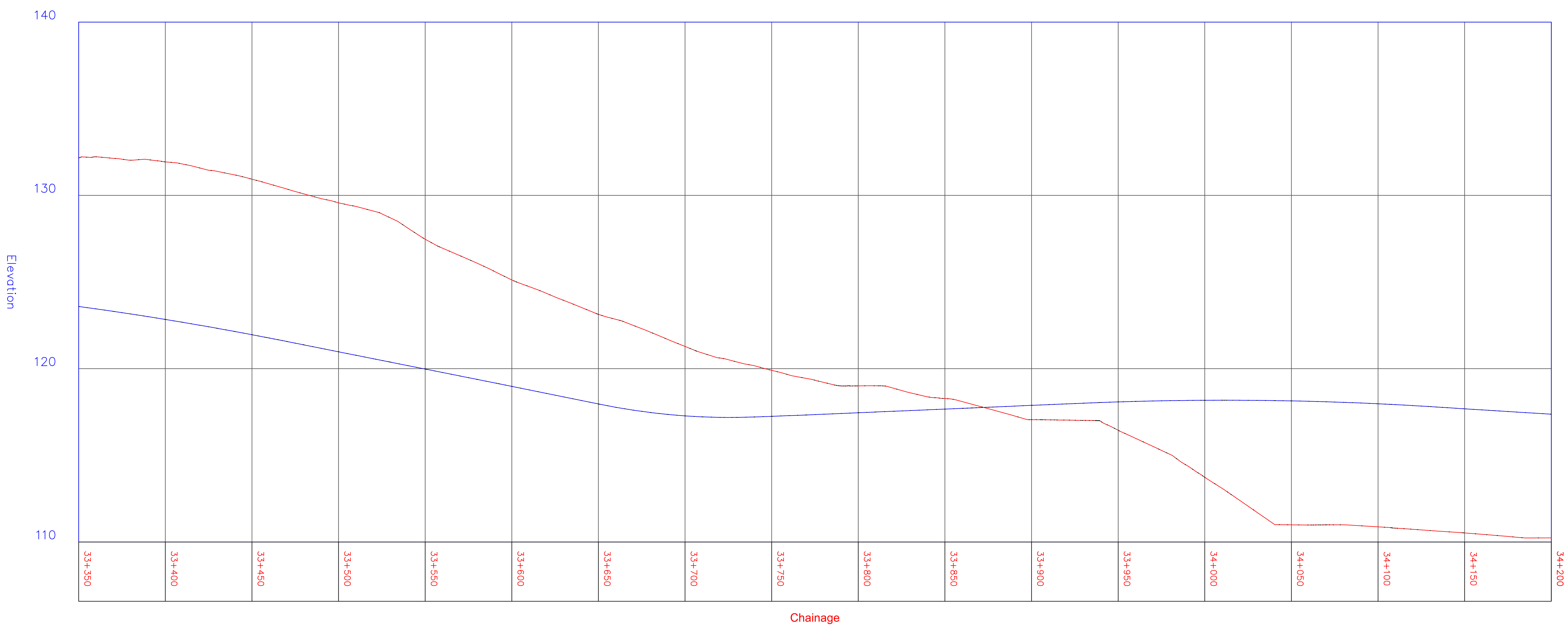

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Project Name
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Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 5 of 11

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Suitability	Suitability Description	Revision
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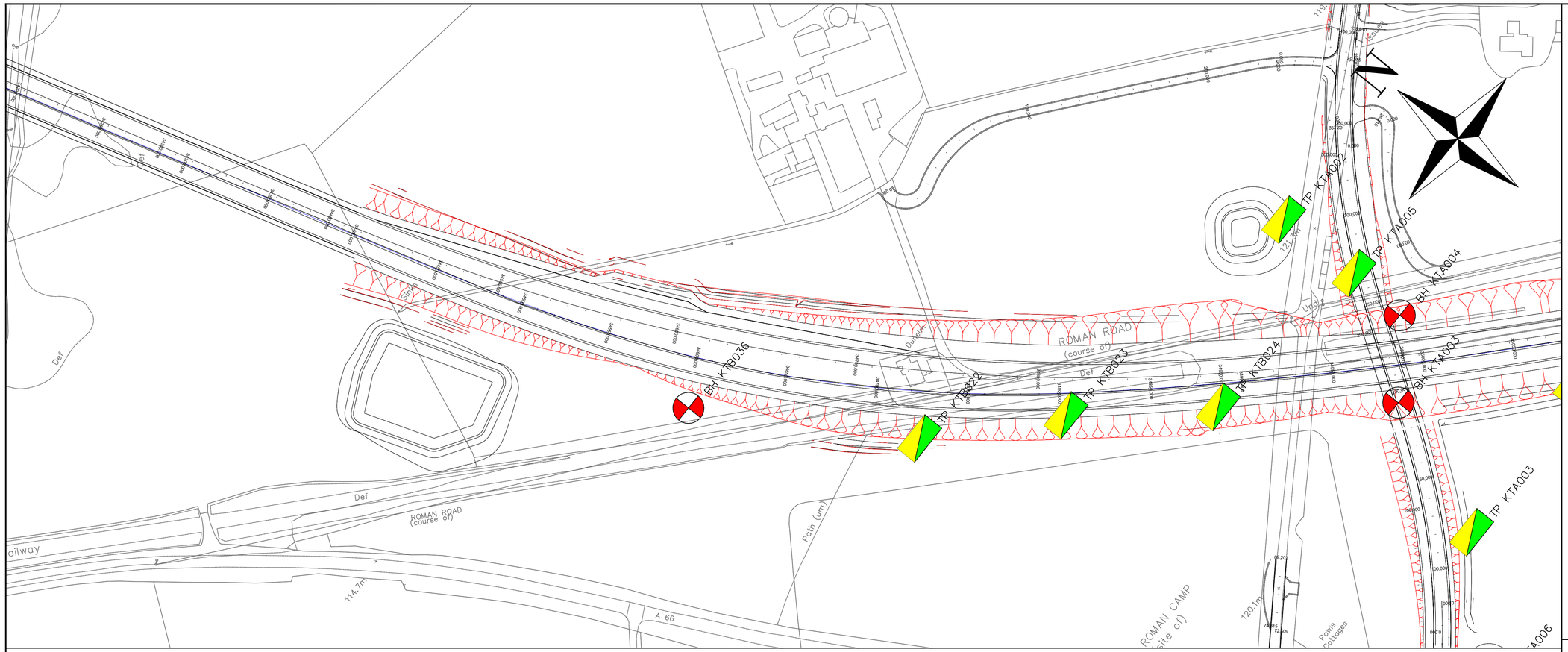

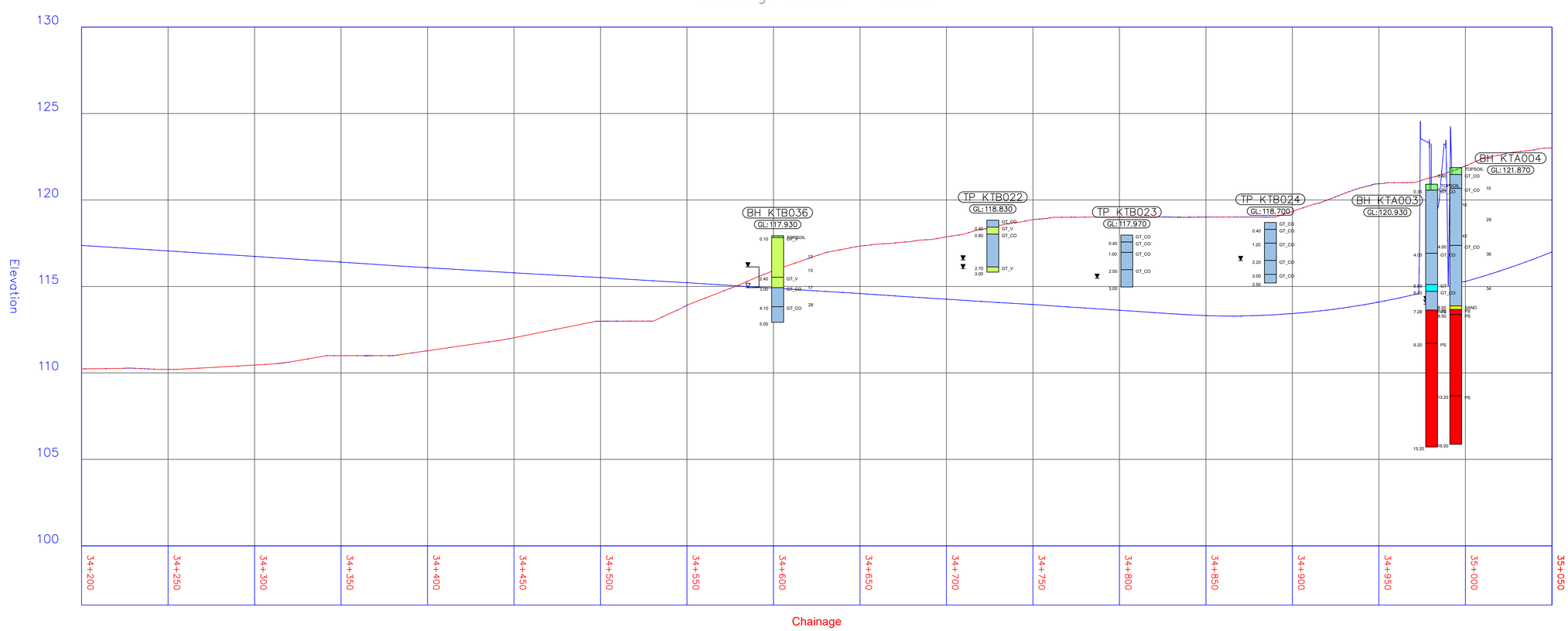

Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SSt formation
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01						
	MHAR	MHAR	PCOF	PCOF	---	
	26/10/21	27/10/21	09/12/21	09/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

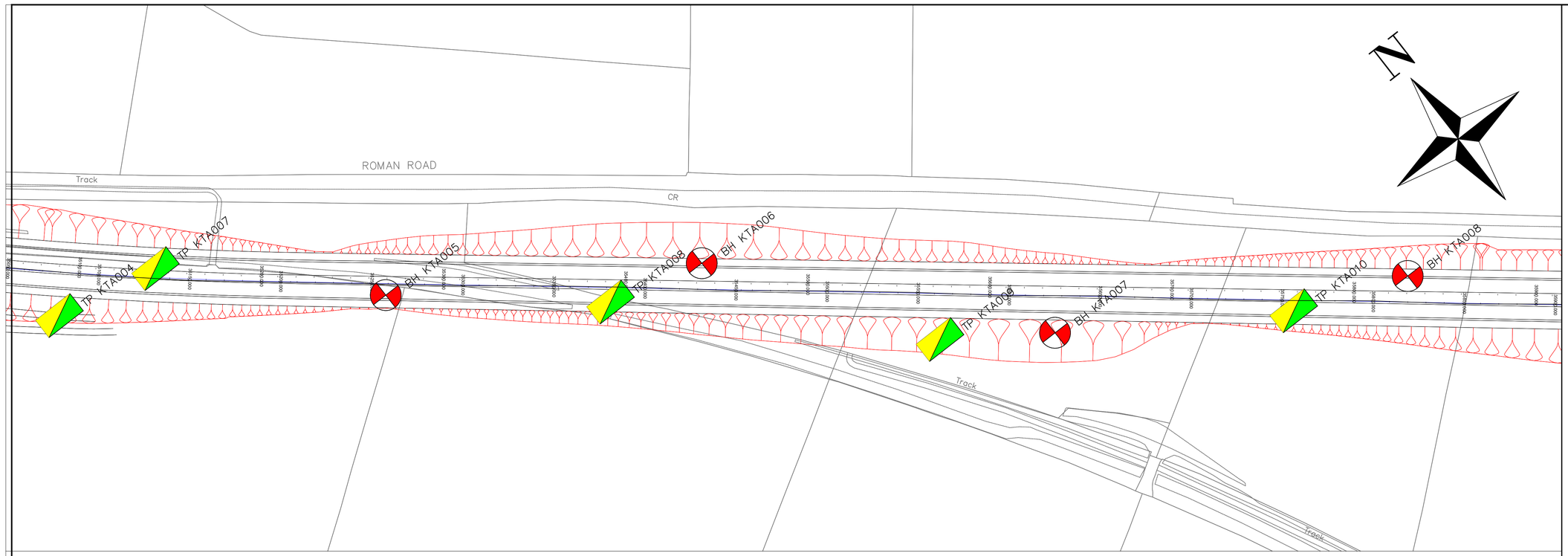
Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 6 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

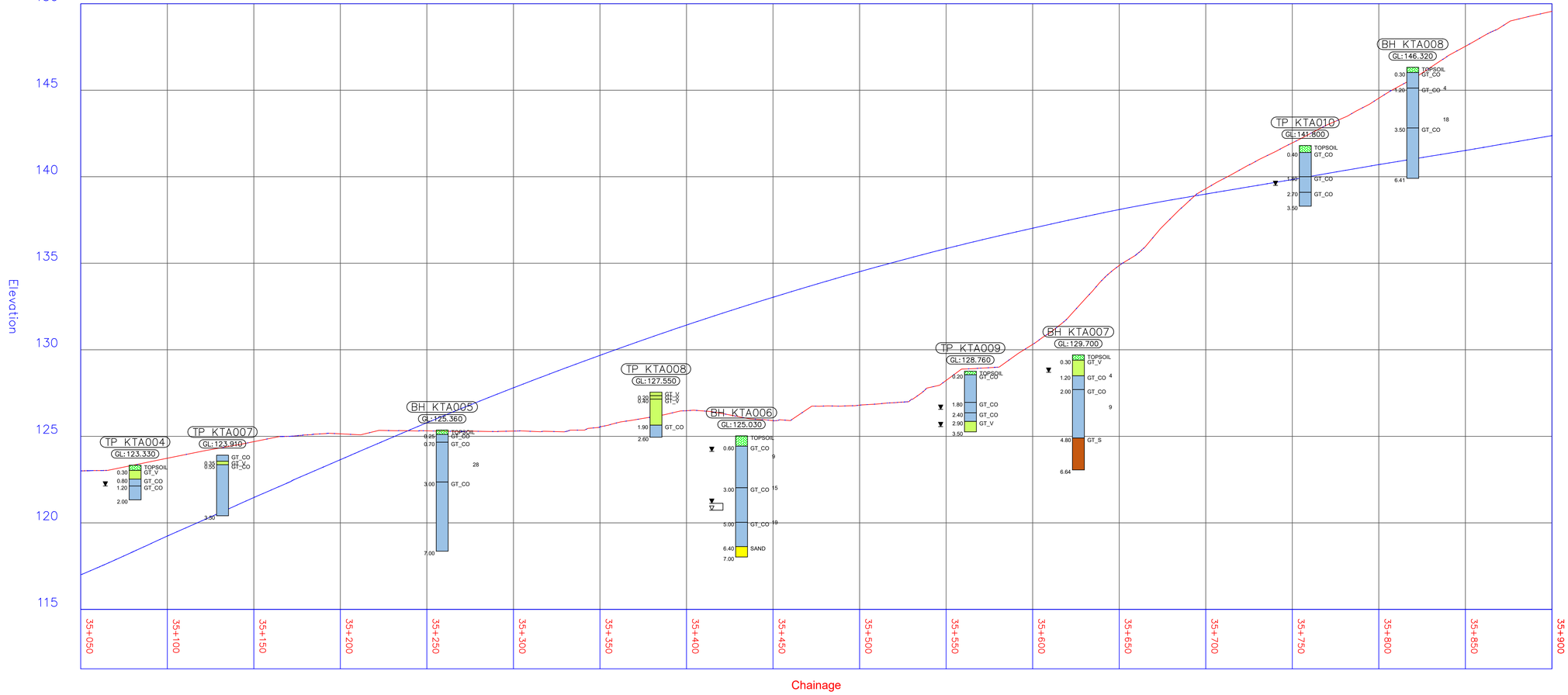
Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S0405	-DR-	CE-	000106	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Chainage 35050 – 35900



Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
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EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit
WS Window Sample
TP Trial Pits
BH Boreholes
BH Historic Boreholes

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P01						
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Revision	Revision details					
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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 7 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S0405		-DR-	CE-	000107
Location		Type	Role	Number

Suitability	Suitability Description	Revision
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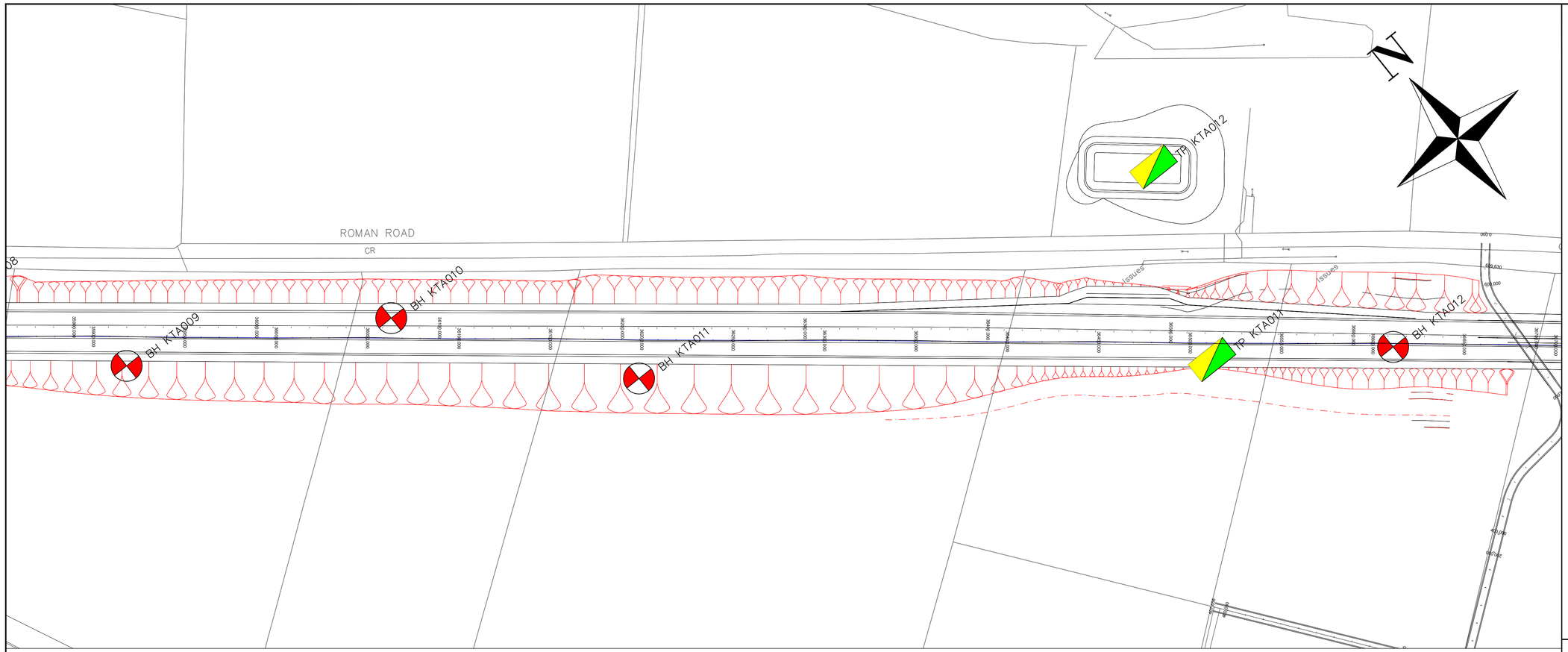


Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
	GT_S	Glacial Till (granular)
	GT_V	Glacial Till (sandy)
	BRCK	Brockram – Conglomerate forming part of Penrith SSt formation
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

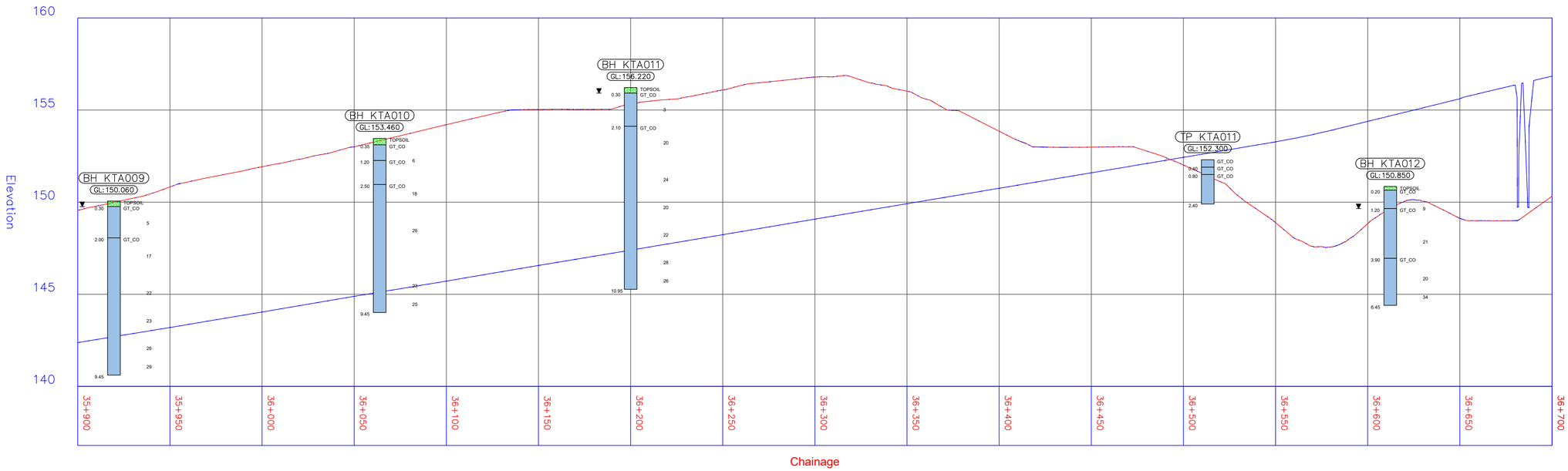
WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

Chainage 35900 – 36700



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	26/10/21	27/10/21	09/12/21	09/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

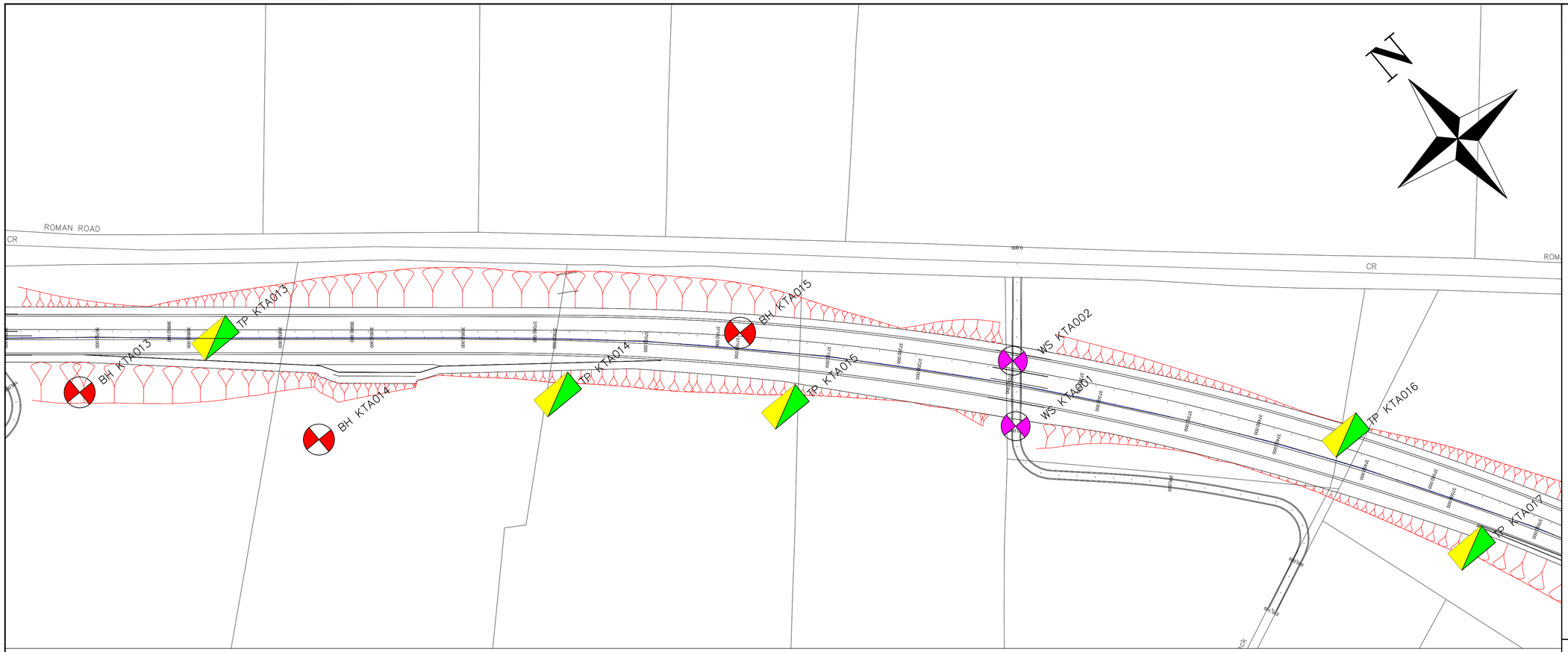
Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 8 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S0405	-DR-CE-	000108		
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Legend	
TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
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GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SSt formation
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit

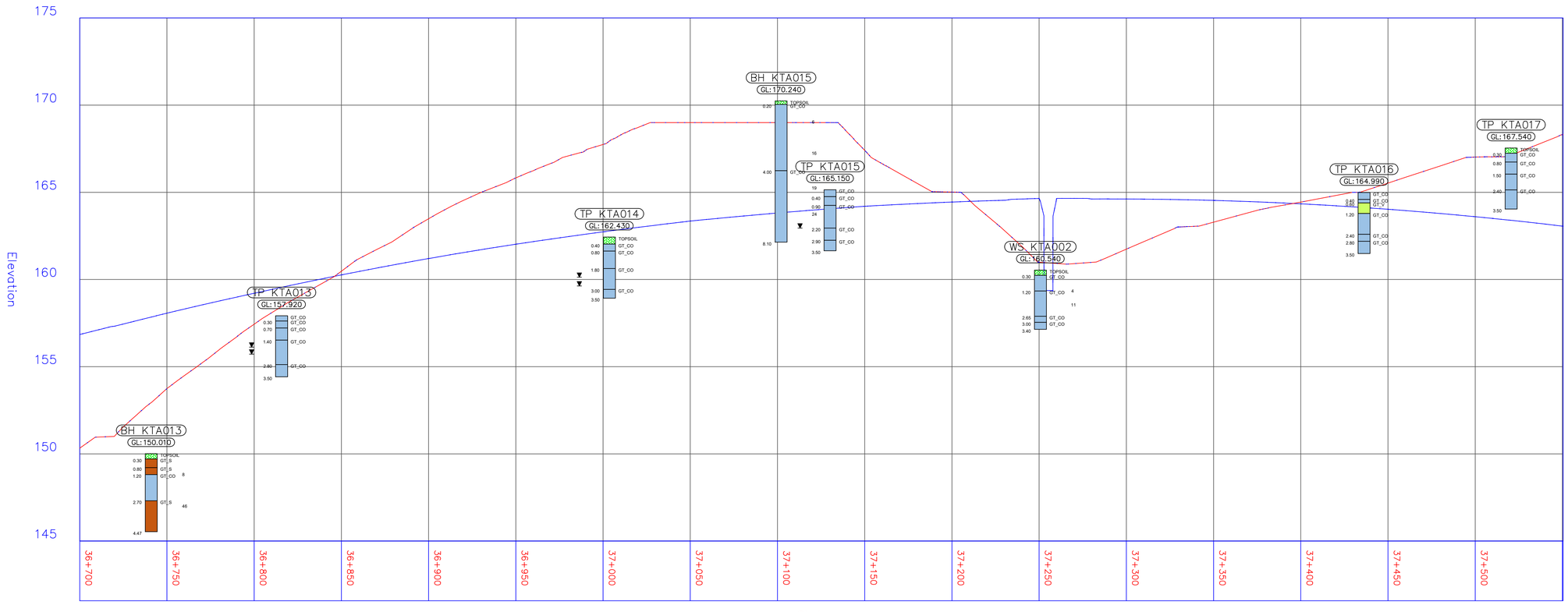
WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

Chainage 36700 – 37550



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P01	MHAR	MHAR	PCOF	PCOF	---	
	26/10/21	27/10/21	09/12/21	09/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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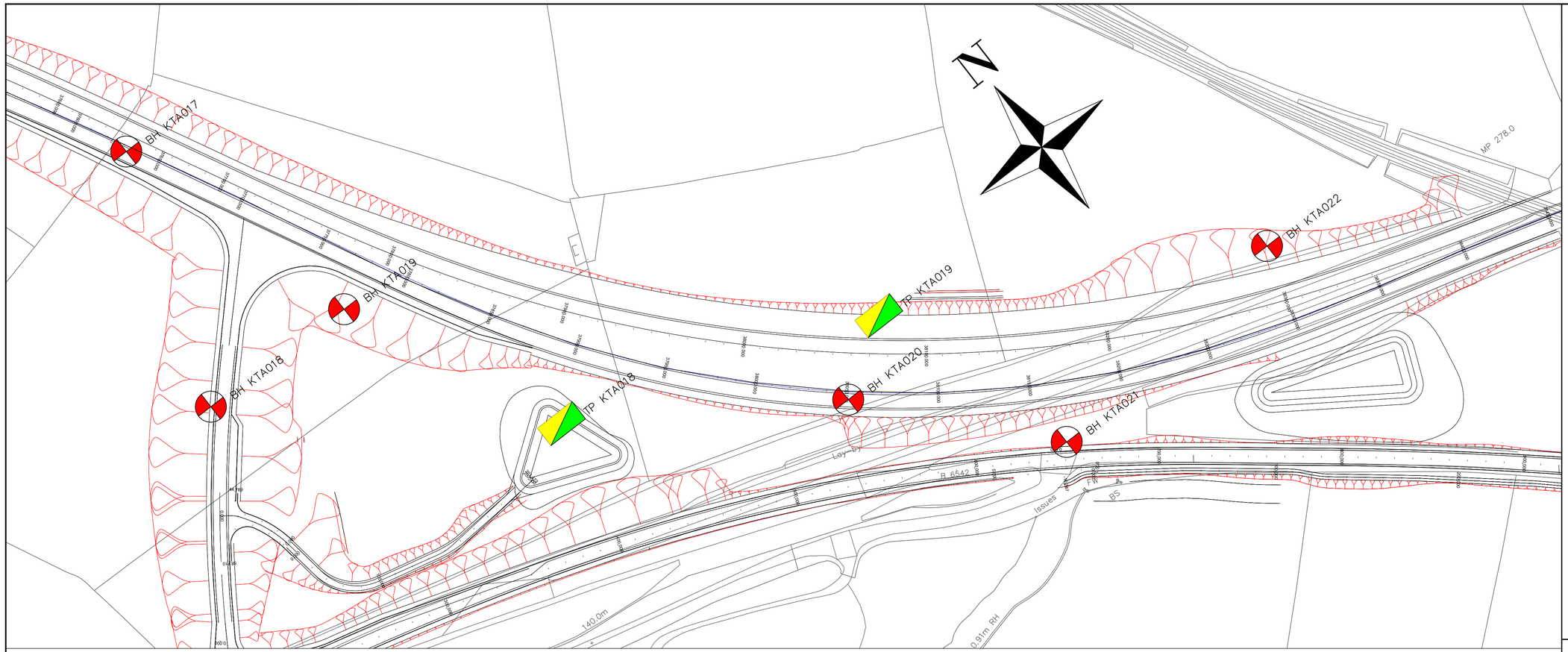
Project Name
A66 Northern Trans-Pennine

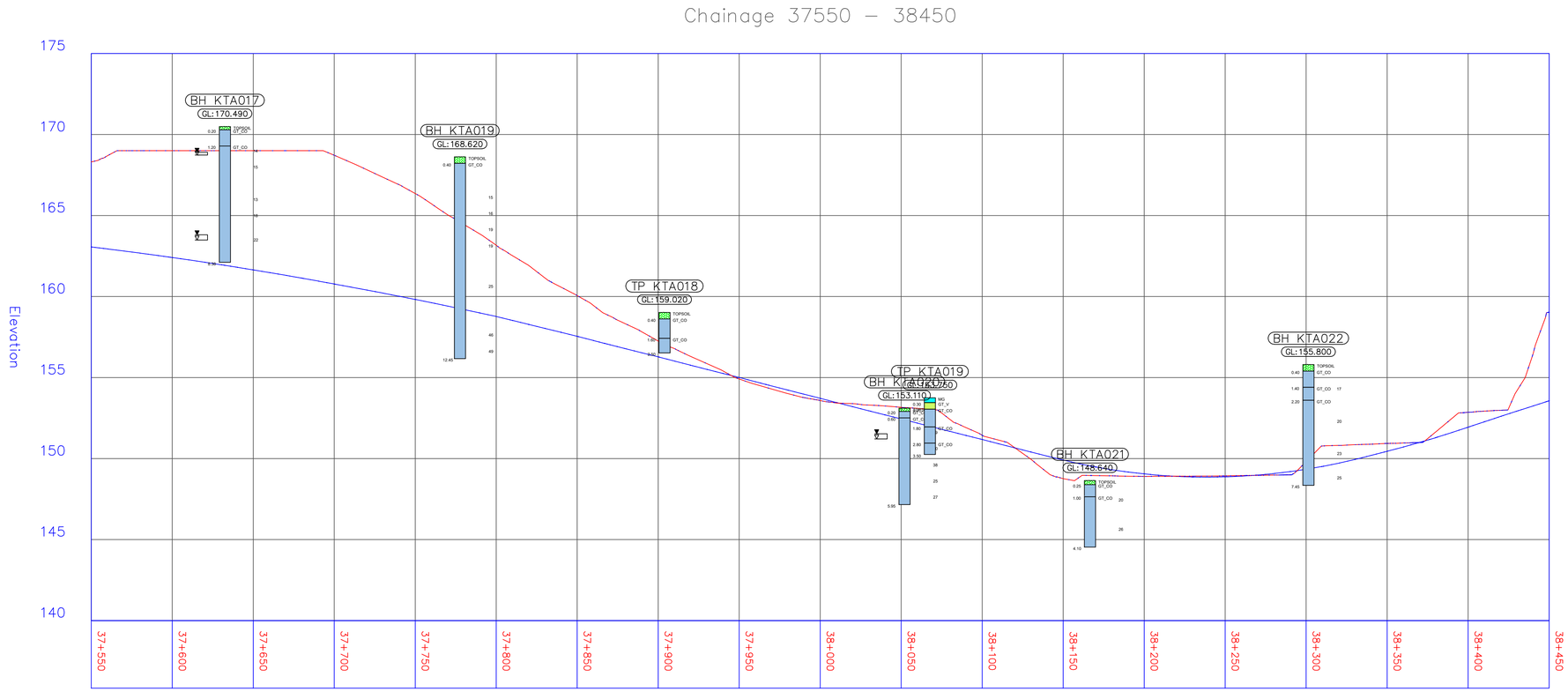
Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 9 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000109
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01





Legend

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	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
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	GT_V	Glacial Till (sandy)
	BRCK	Brockram – Conglomerate forming part of Penrith SSt formation
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01	MHAR	MHAR	PCOF	PCOF	---	
	26/10/21	27/10/21	09/12/21	09/12/21	---	
Revision	Revision details					
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	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

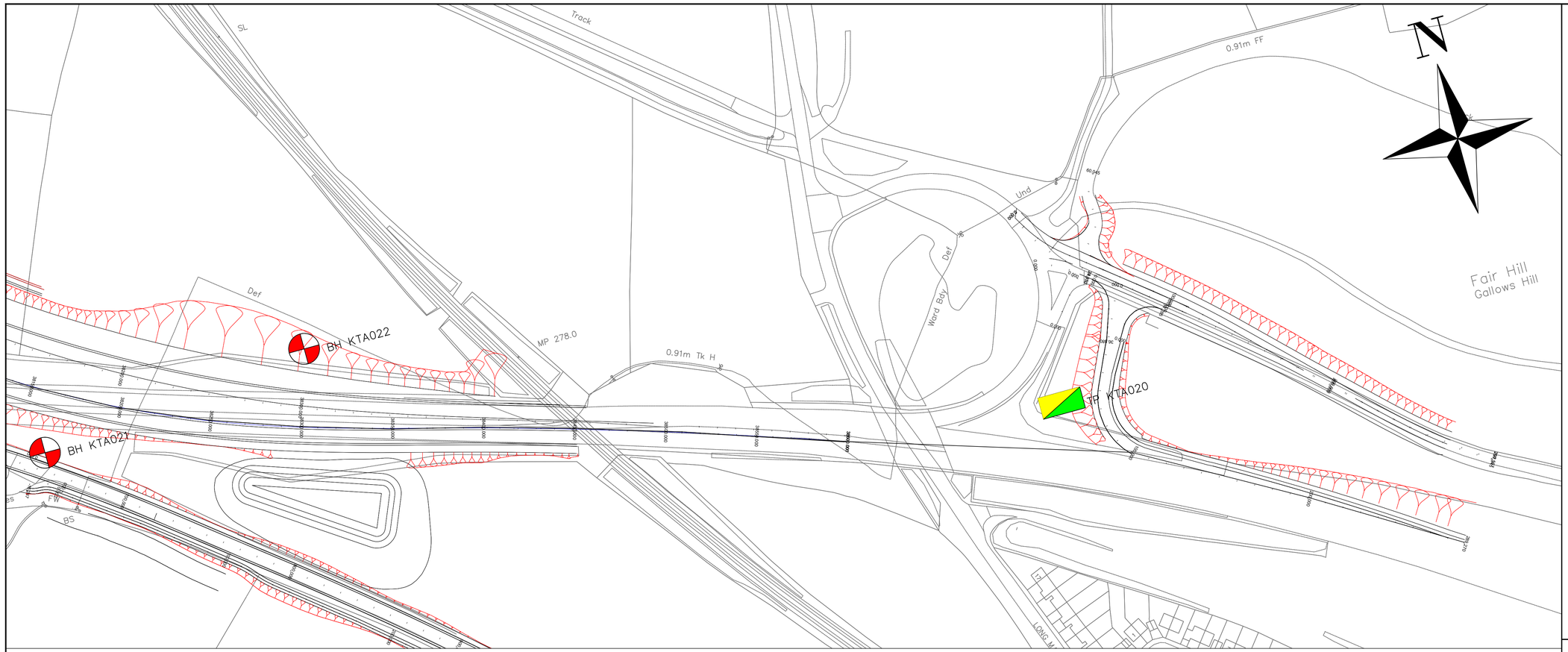
Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 10 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

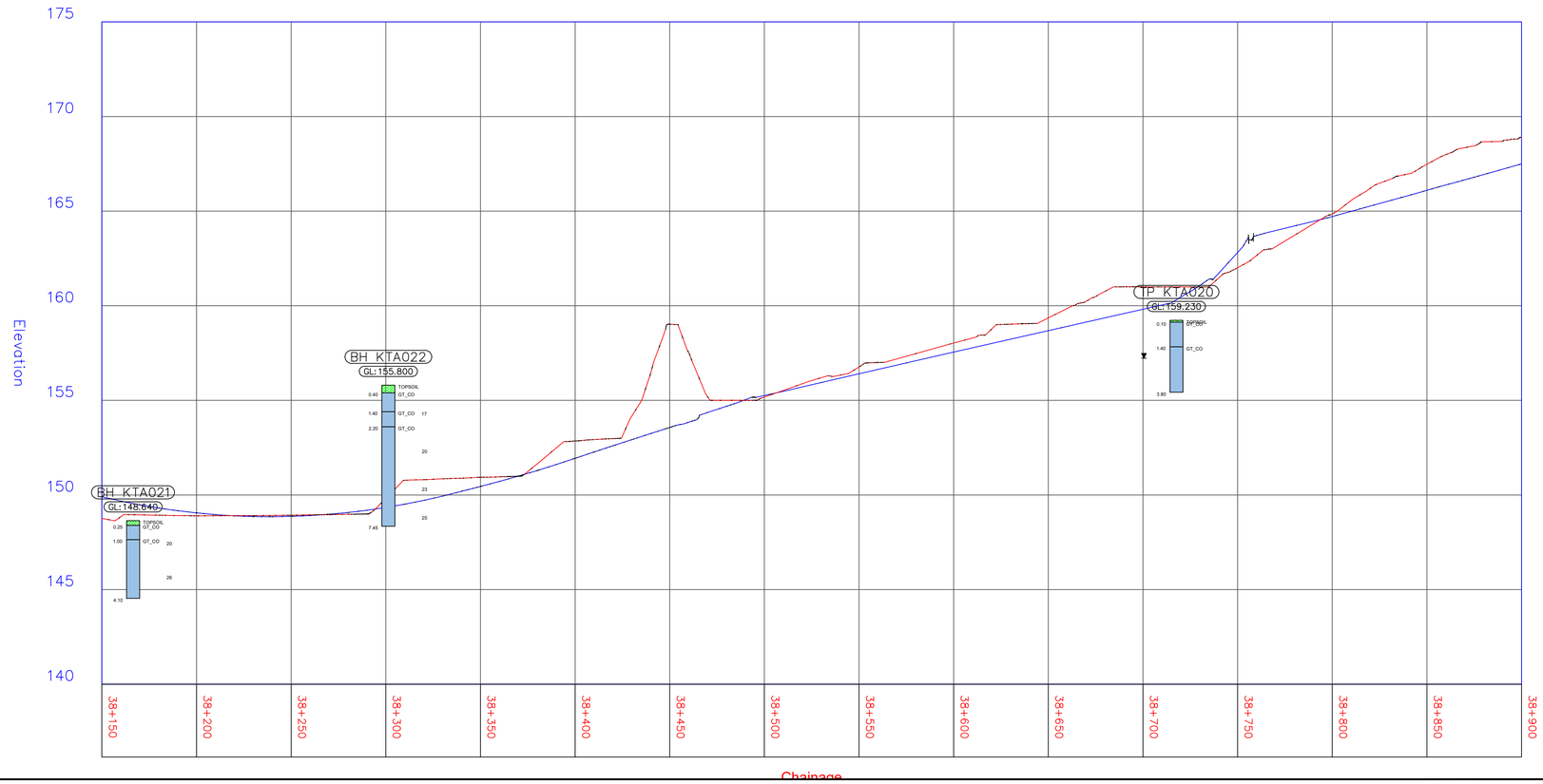
Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S0405	-DR-	CE-	000110	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Chainage 38150 – 38900



Legend		
	TOPSOIL	Topsoil
	MG_CO	Made Ground – Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
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	GT_CO	Glacial Till (cohesive)
	GT_S	Glacial Till (granular)
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	BRCK	Brockram – Conglomerate forming part of Penrith SSt formation
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01	MHAR	MHAR	PCOF	PCOF	---
	26/10/21	27/10/21	09/12/21	09/12/21	---
Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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national highways

Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby
GIR Drawings
Sheet 11 of 11

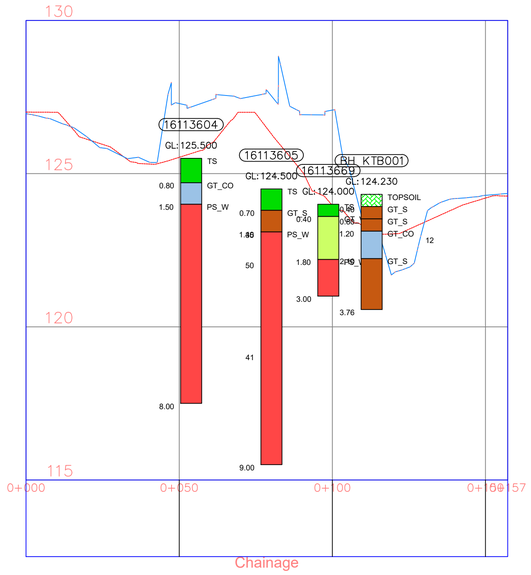
Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

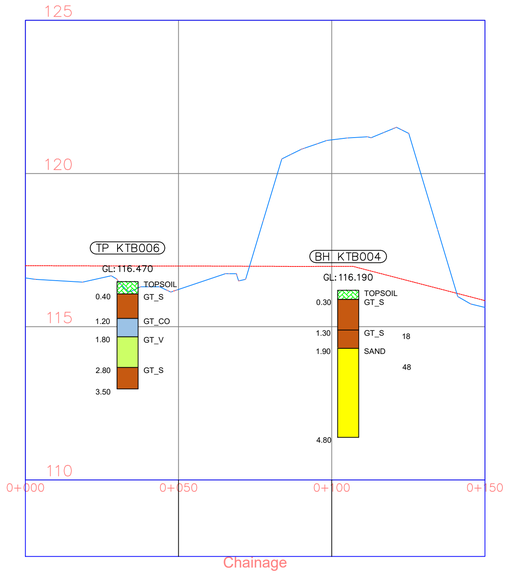
Project	Originator	Volume	Location	Type	Role	Number
HE565627	AMY	HGT	S0405	DR	CE	000111

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

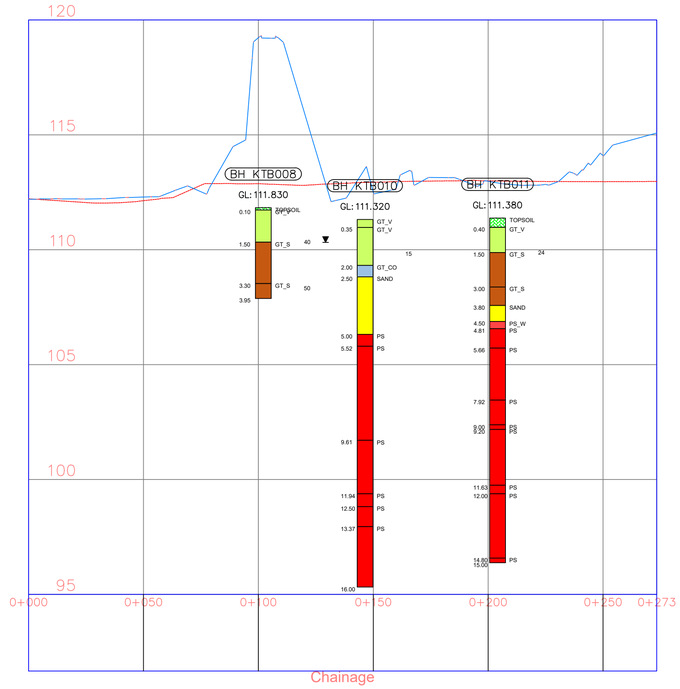
Spitals Farm Underpass cross section



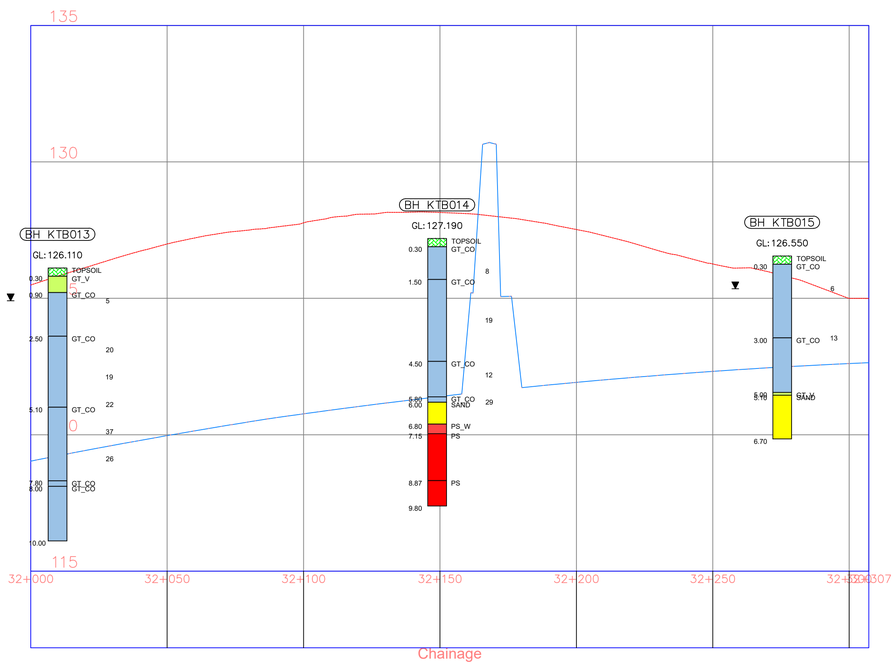
Priestlane Underpass cross section



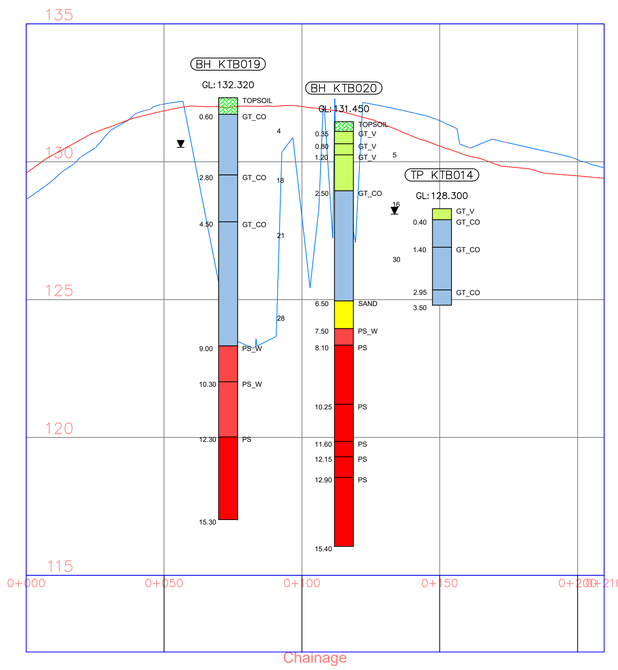
Cross St Overbridge cross section



Green Lane Overbridge long section



Main St Bridge cross section



RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

1. Please enter project specific hazards here.

NOTES

1.

Legend

TOPSOIL	Topsoil
MG_CO	Made Ground – Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SSt formation – noted in Warcop section
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

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P01						
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	09/12/21	09/12/21	13/12/21	13/12/21	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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highways england

Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby
Structures Geotechnical Appraisal
Sheet 1 of 2

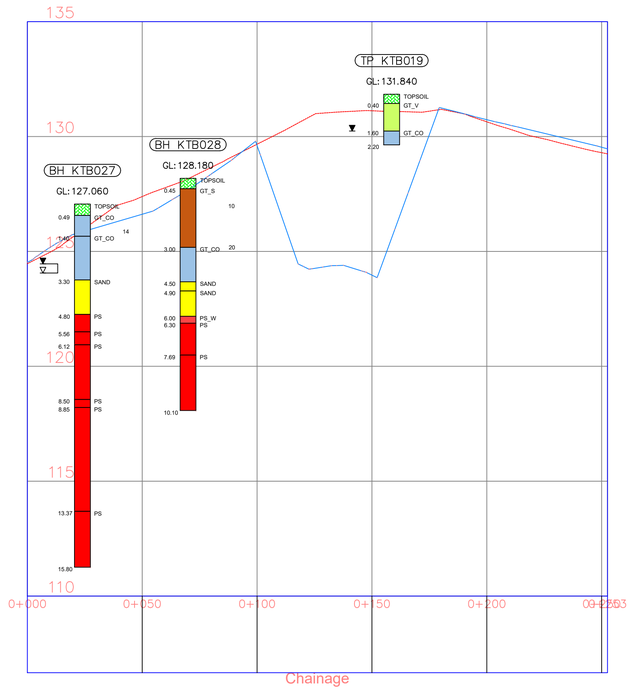
Project Ref. No.	Stage	Scale : N/A @ A1
---	PCF3	Dimensions : M

Drawing Number

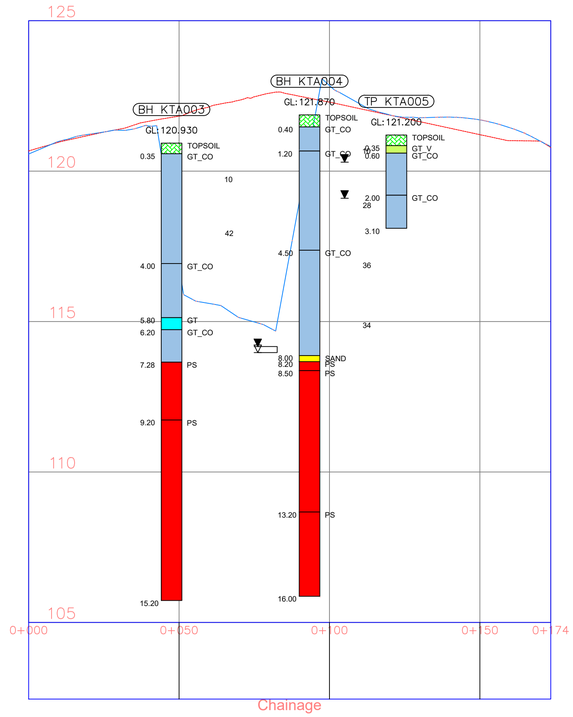
Project	Originator	Volume			
HE565627	- AMY	- HGT	-		
S0405		-DR	-CE	- 000301	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

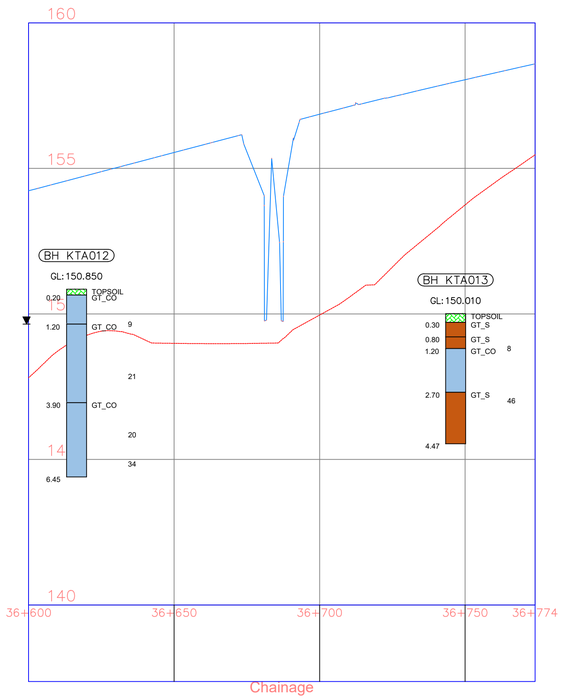
Sleastonhow Lane Bridge cross section



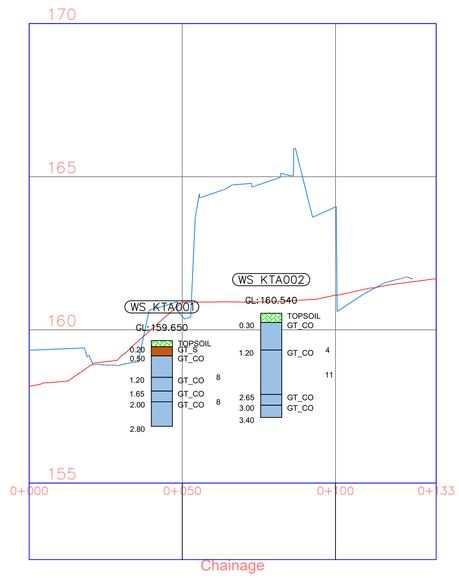
Long Marton Bridge cross section



Crackenthorpe to Roman Road long section



Roger Head Farm Underpass cross section



RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

1. Please enter project specific hazards here.

NOTES

1.

Legend

TOPSOIL	Topsoil
MG_CO	Made Ground – Cohesive
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ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
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PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

Revision					
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Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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national highways

Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby
Structures Geotechnical Appraisal
Sheet 2 of 2

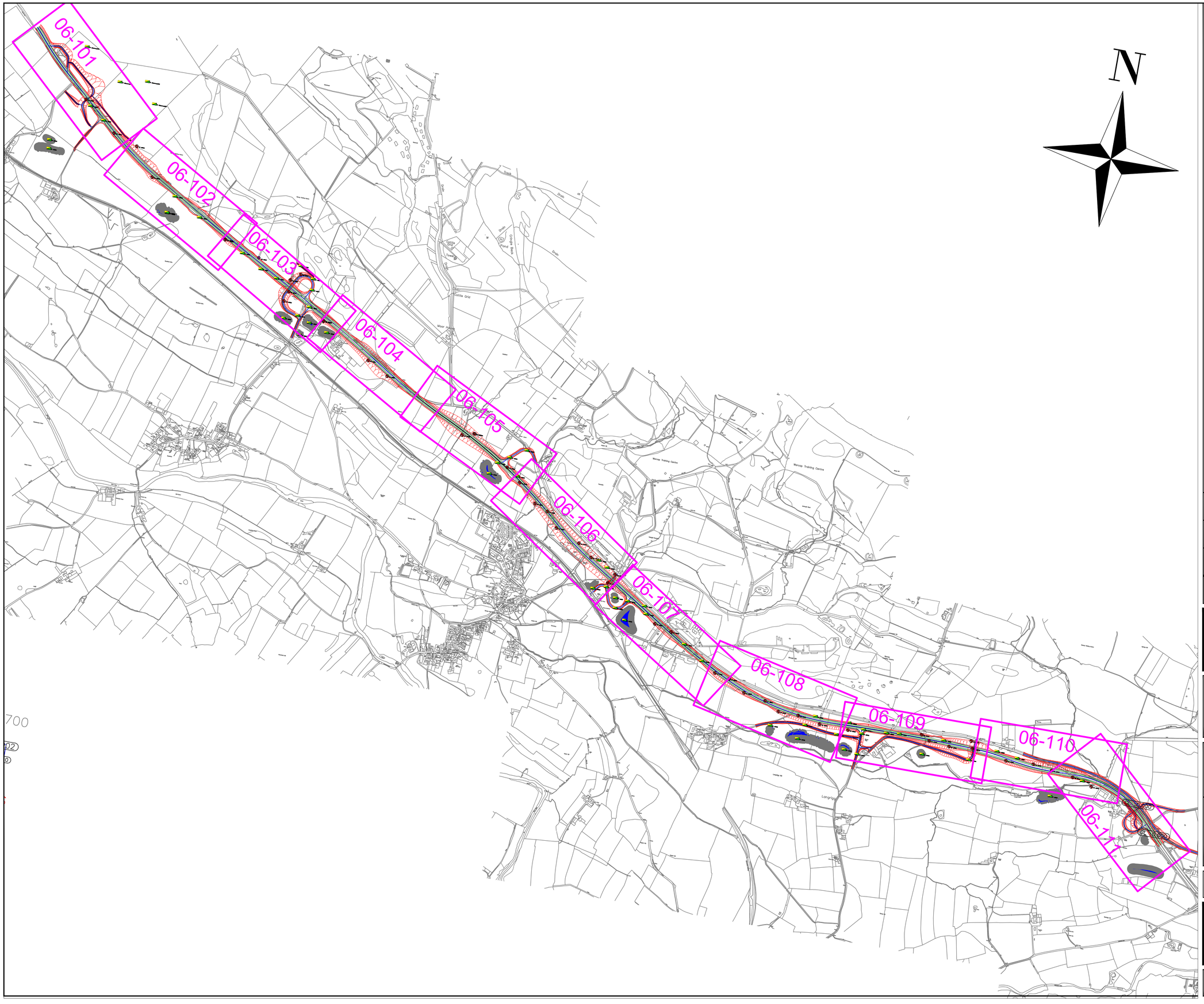
Project Ref. No.	Stage	Scale : N/A @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627 -	AMY -	HGT -			
S0405		-DR-	CE-	000302	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

A.2 Appleby to Brough (Warcop): Geological with Long Sections



Key to all Geotechnical Drawings

- HDTP — Hand Pit
- WS — Window Sample
- TP — Trial Pits
- BH — Boreholes
- BH — Historic Boreholes
- Water level
- Water strike
- 06-108 — Scheme no–drawing no

Revision					
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P02	MHAR	MHAR	PCOF	PCOF	---
	21/01/22	21/01/22	25/01/22	25/01/22	---
Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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national highways

Project Name
A66 Northern Trans-Pennine

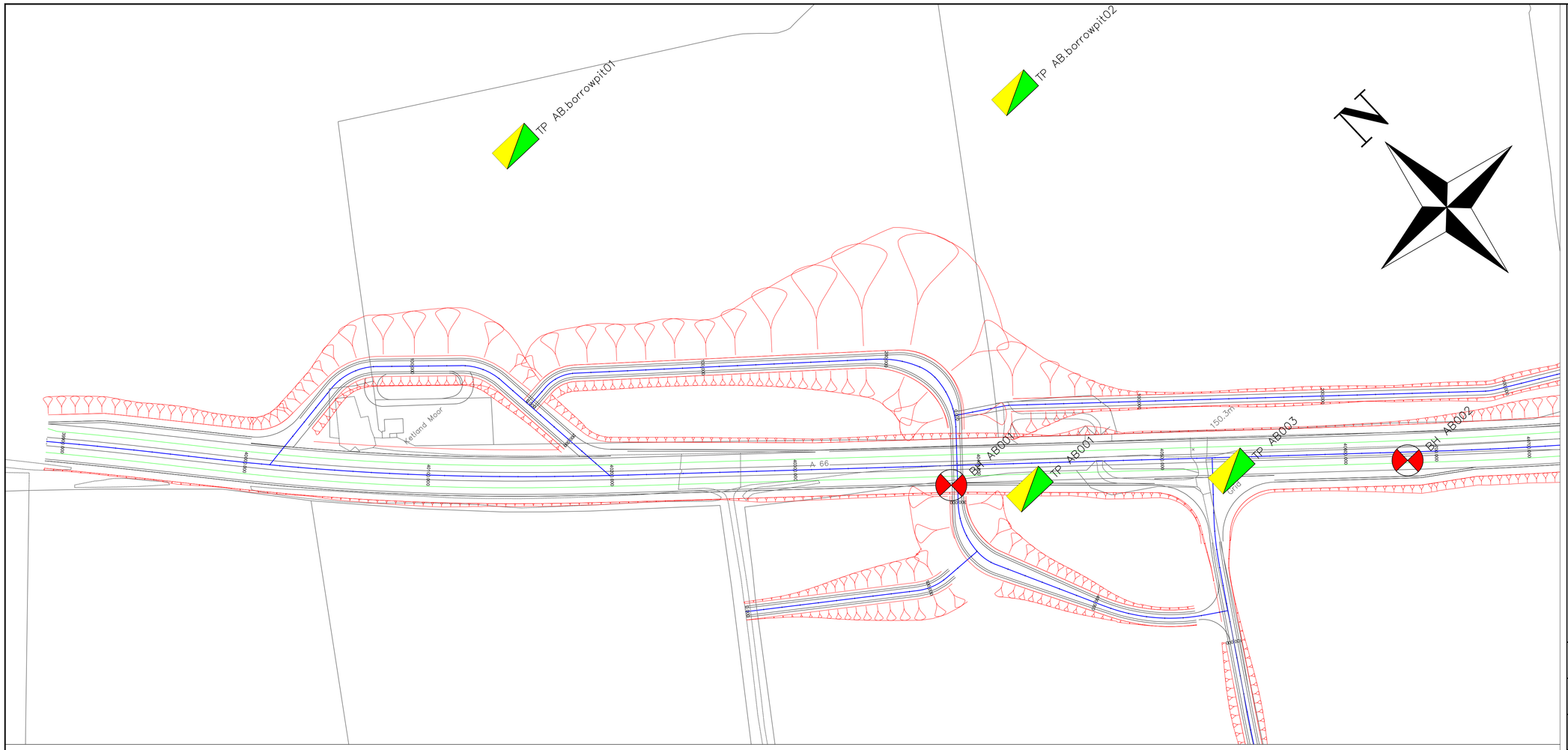
Drawing Title
Package A
Warcop
Key to GI layouyts

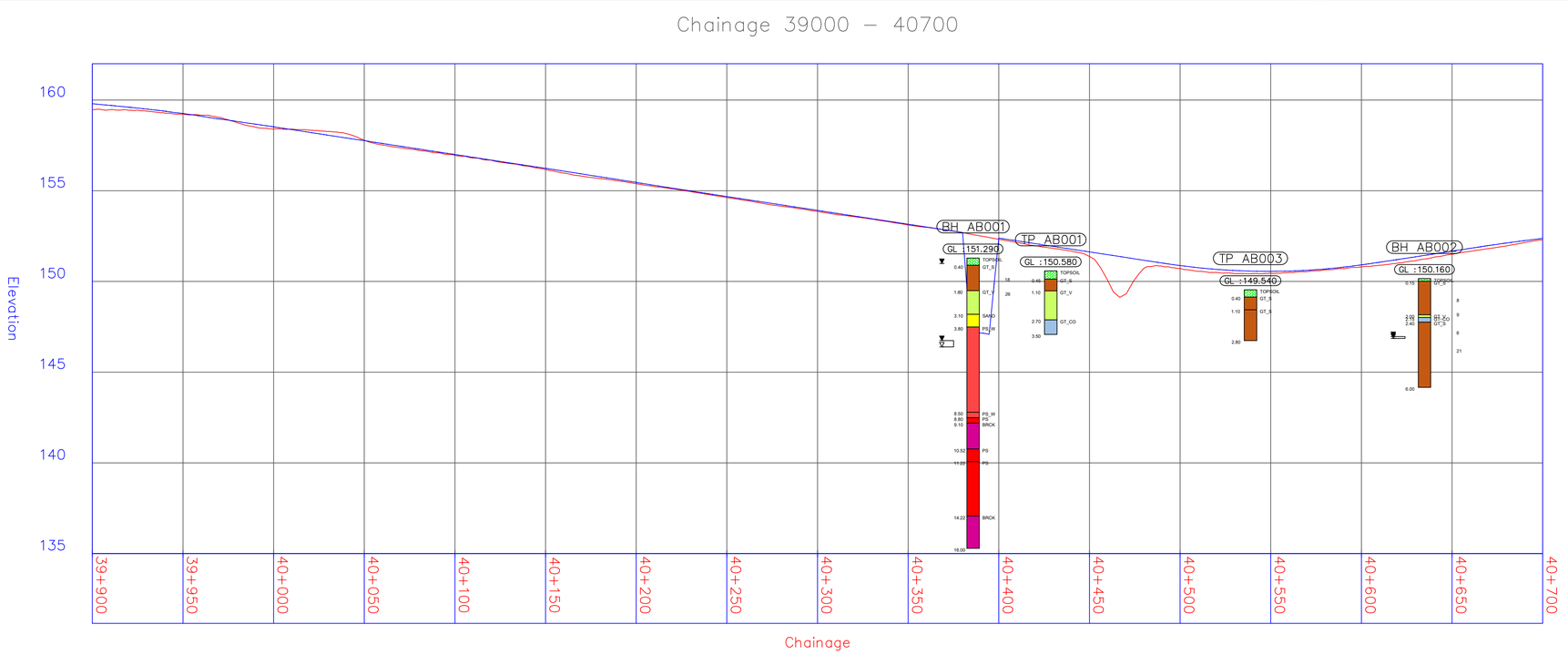
Project Ref. No.	Stage	Scale : 1:10000 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	
HE565627 -	AMY -	HGT -	
S06	-DR-	CE-	000129
Location	Type	Role	Number

Suitability	Suitability Description	Revision
S4	Fit for Stage Approval	P02





Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
	GT_S	Glacial Till (granular)
	GT_V	Glacial Till (sandy)
	BRCK	Brockram – Conglomerate forming part of Penrith SSt formation – noted in Warcop section
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01	MHAR	MHAR	PCOF	PCOF	---	
	27/10/21	27/10/21	10/12/21	10/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

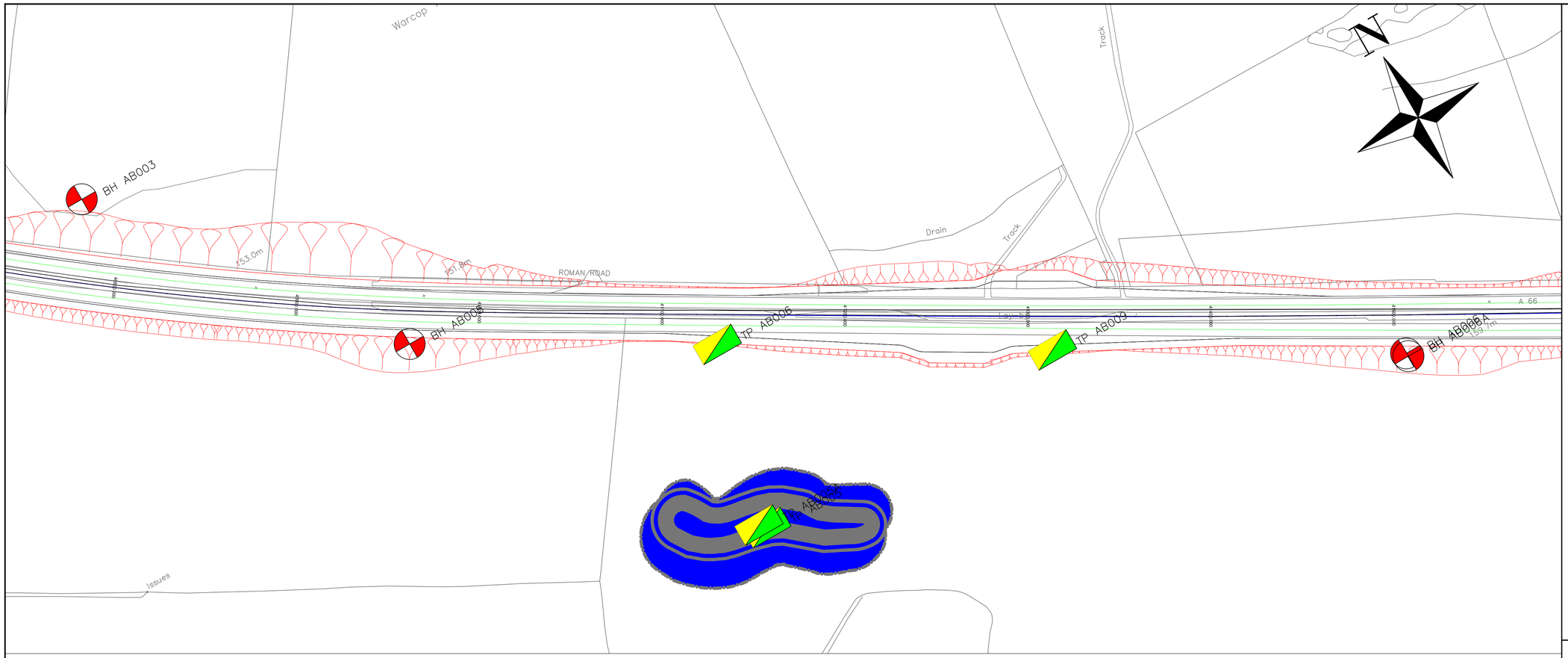
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 1 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE-	000101
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
	GT_S	Glacial Till (granular)
	GT_V	Glacial Till (sandy)
	BRCK	Brockram – Conglomerate forming part of Penrith SST formation
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

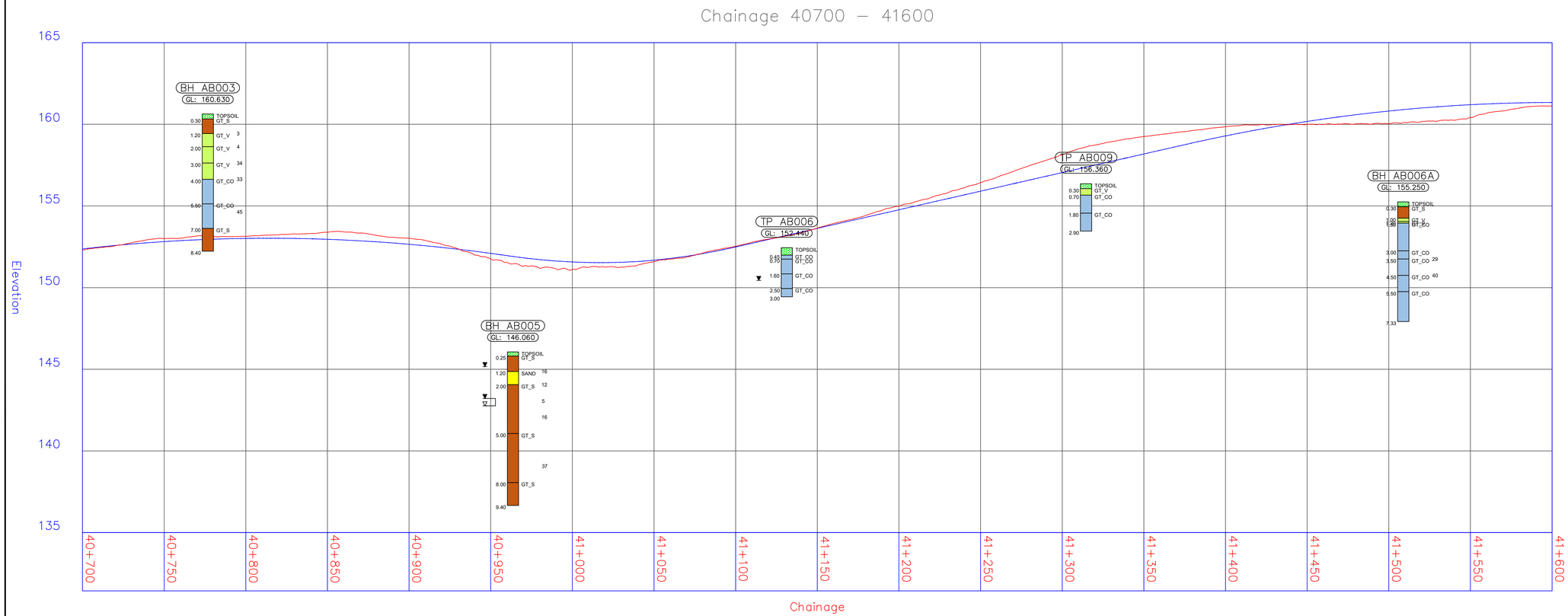
HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes



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P01	MHAR	MHAR	PCOF	PCOF	---
	27/10/21	27/10/21	10/12/21	10/12/21	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

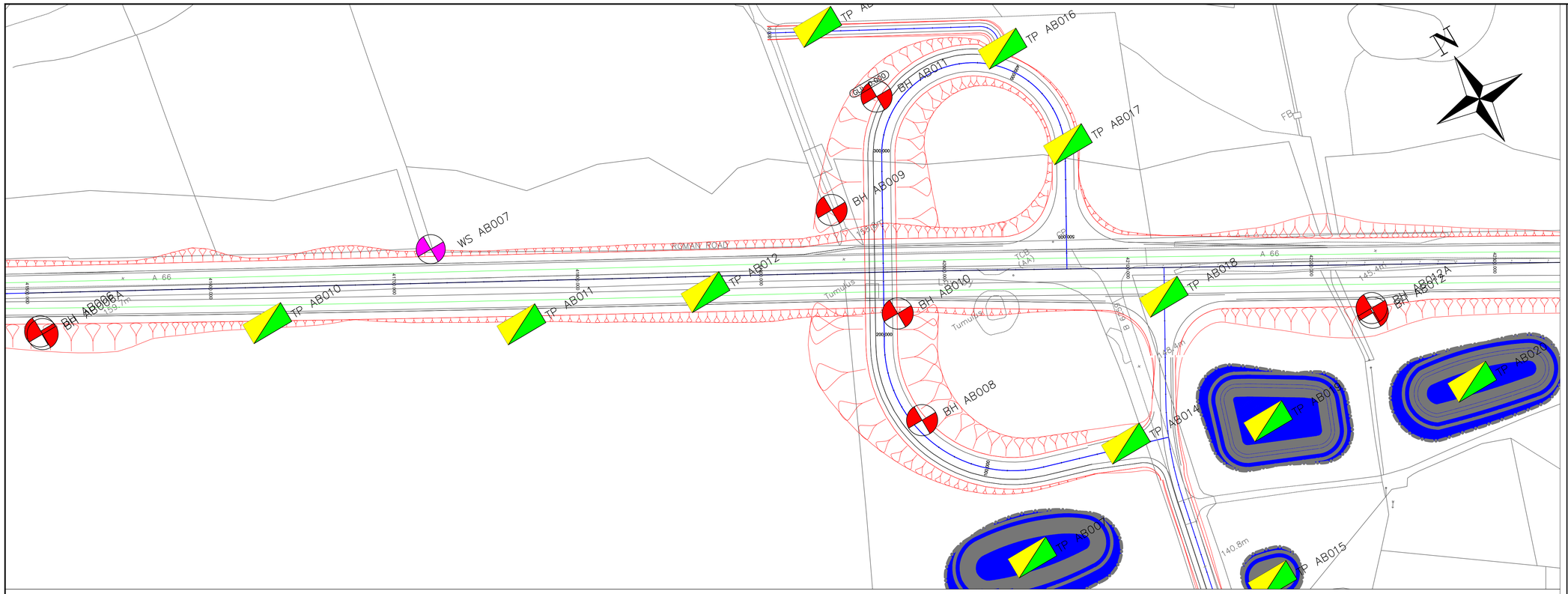
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 2 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

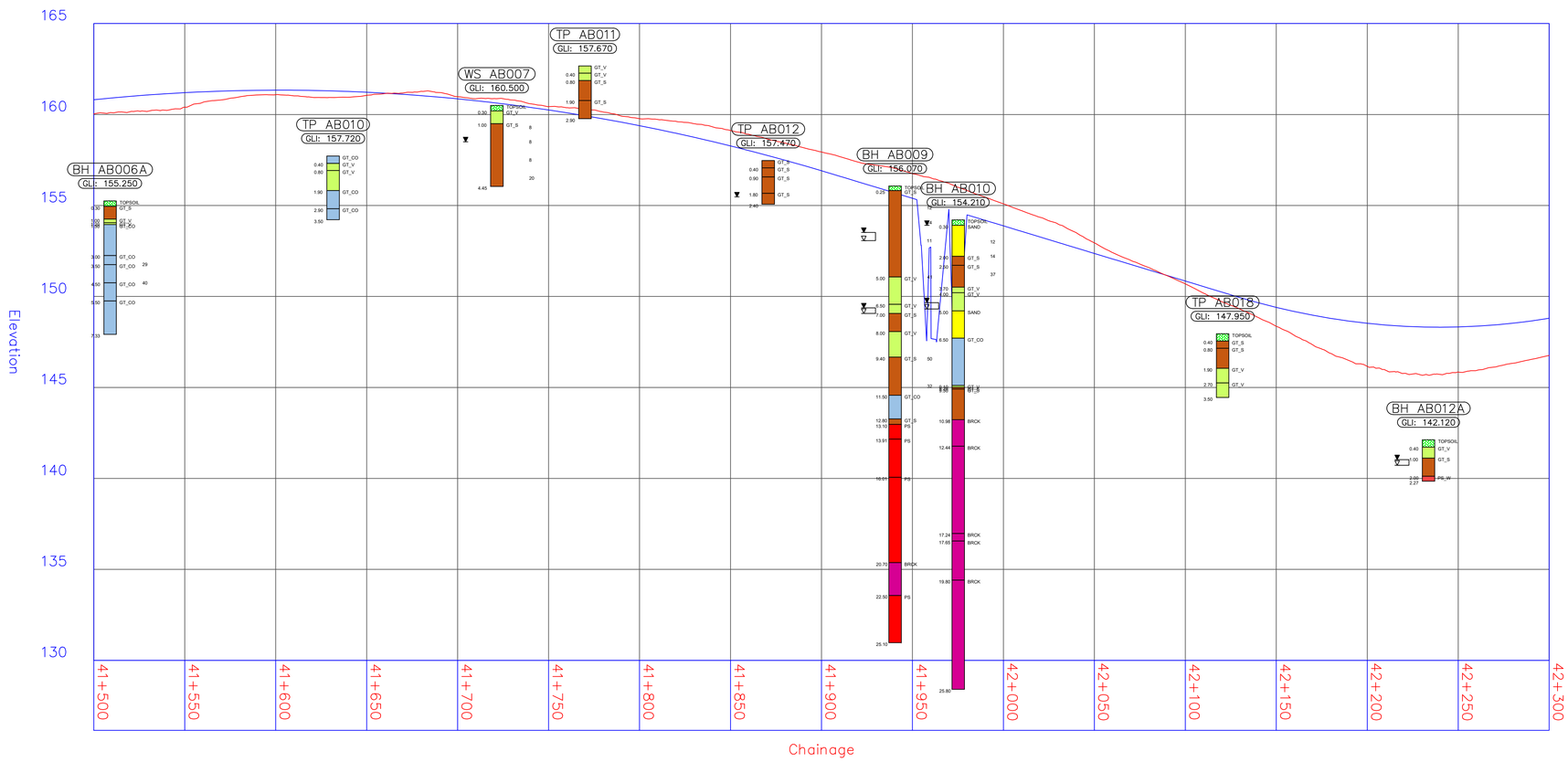
Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE -	000102
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Chainage 41500 – 42300



Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SST formation
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01		MHAR	MHAR	PCOF	PCOF	---
		27/10/21	27/10/21	10/12/21	10/12/21	---
Revision	Revision details	Created	Checked	Reviewed	Approved	Authorised
		dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Warcop
GIR Drawings
Sheet 3 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627 -	AMY -	HGT -			
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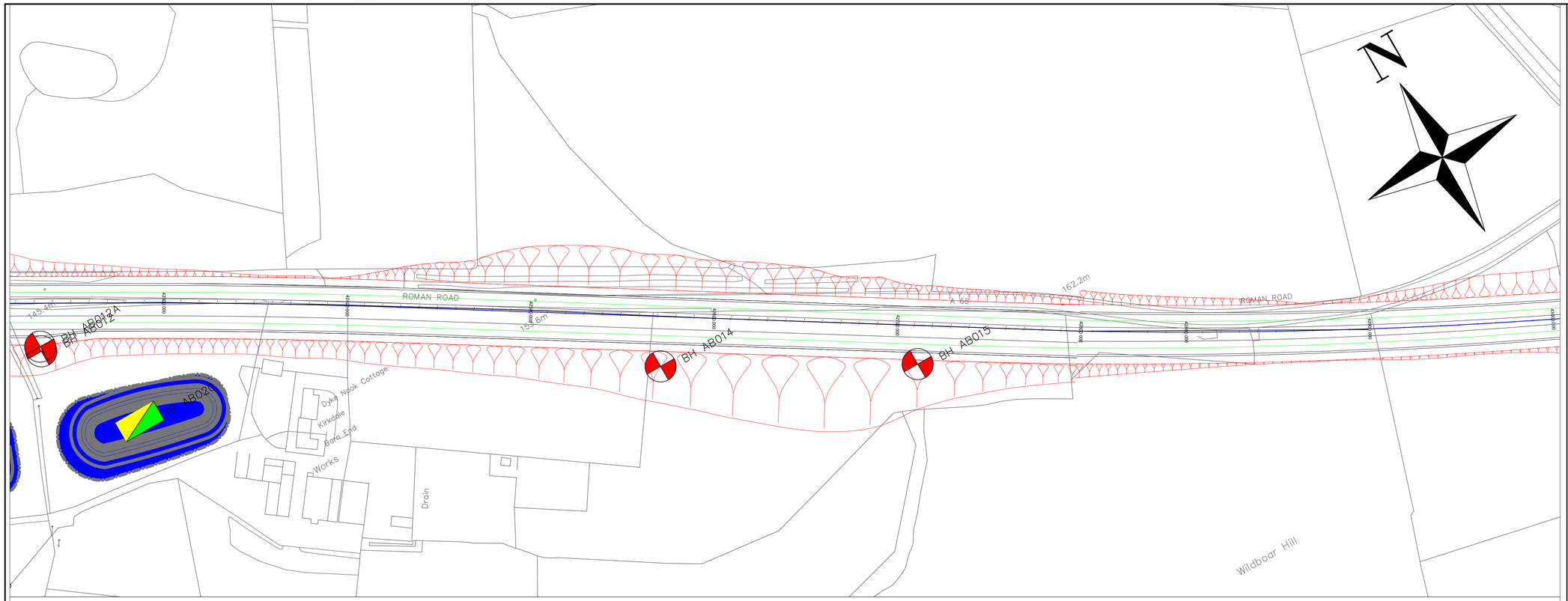
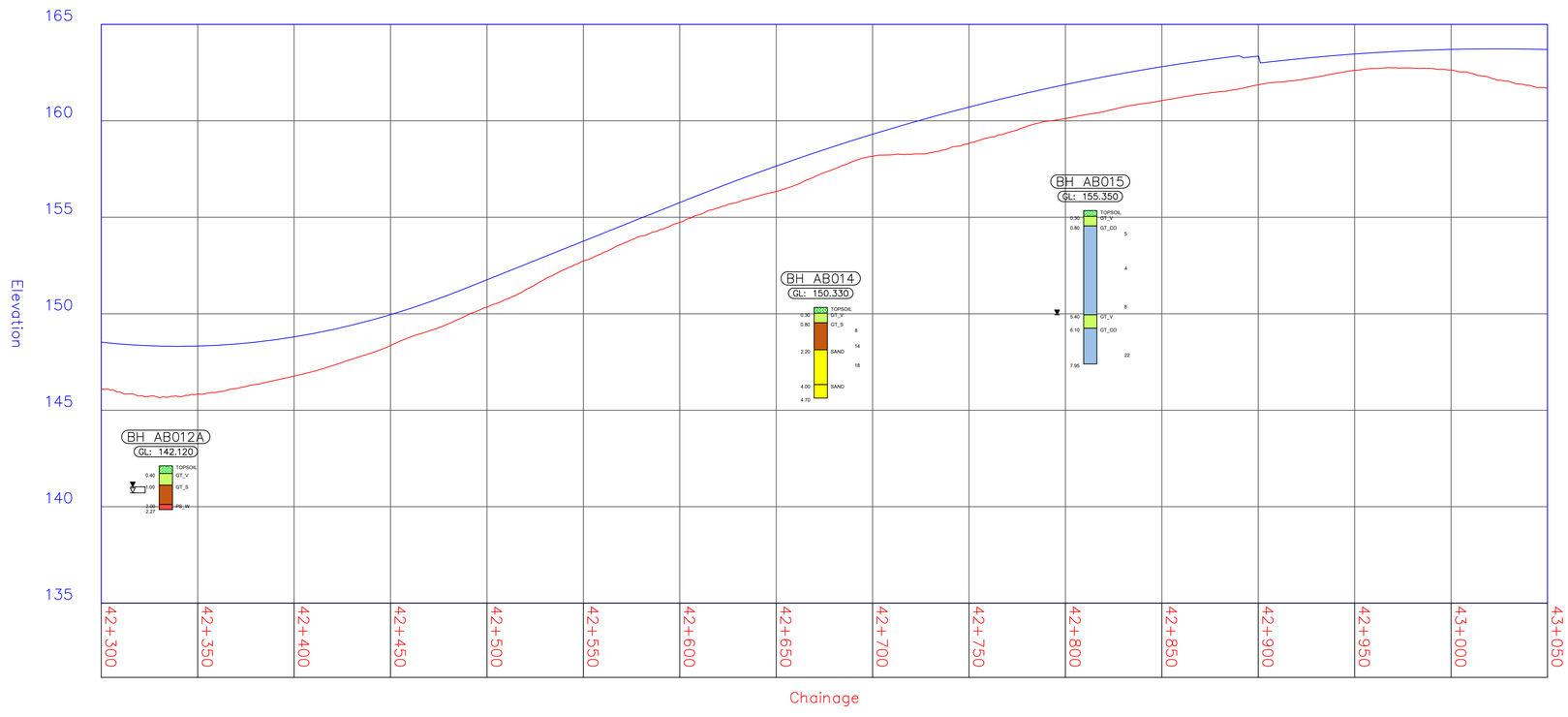
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Chainage 42300 – 43050



Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
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BRCK	Brockram – Conglomerate forming part of Penrith SST formation
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

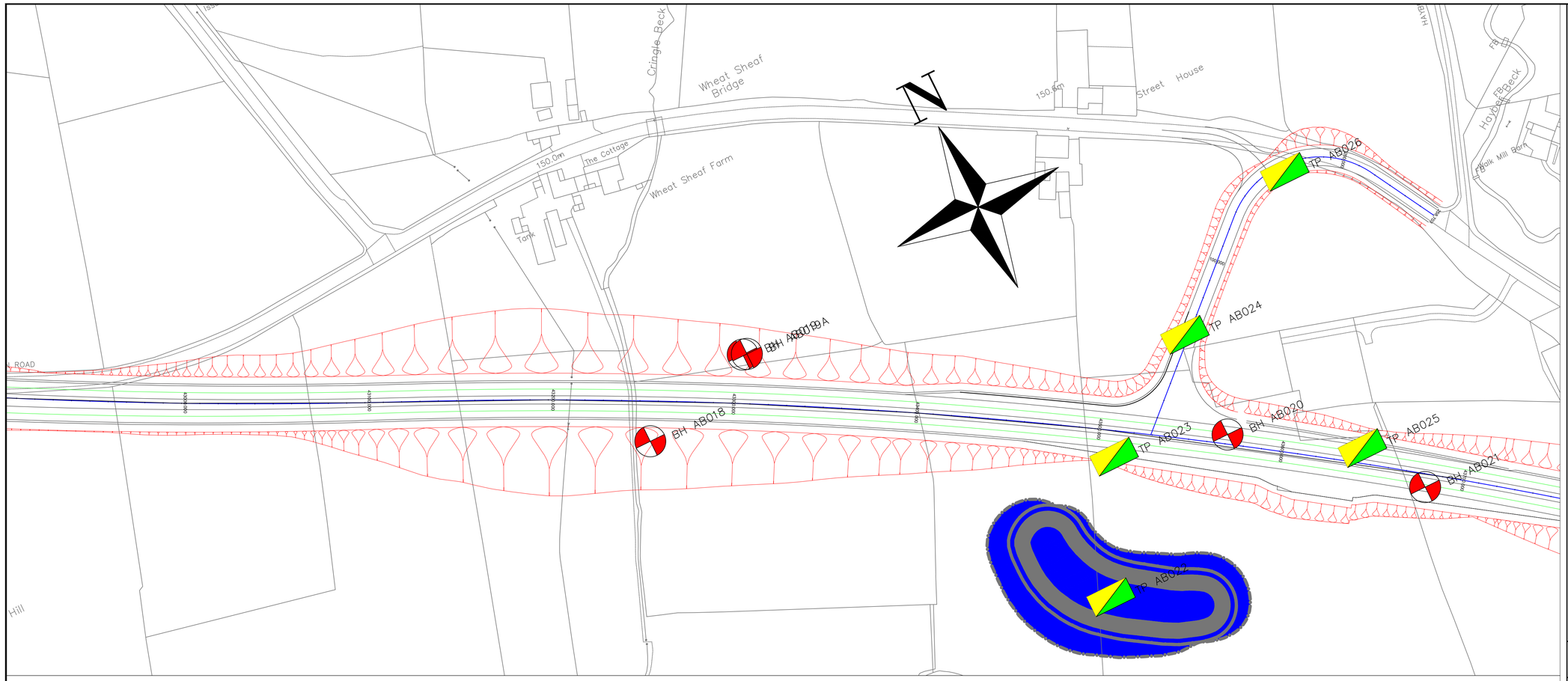
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 4 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

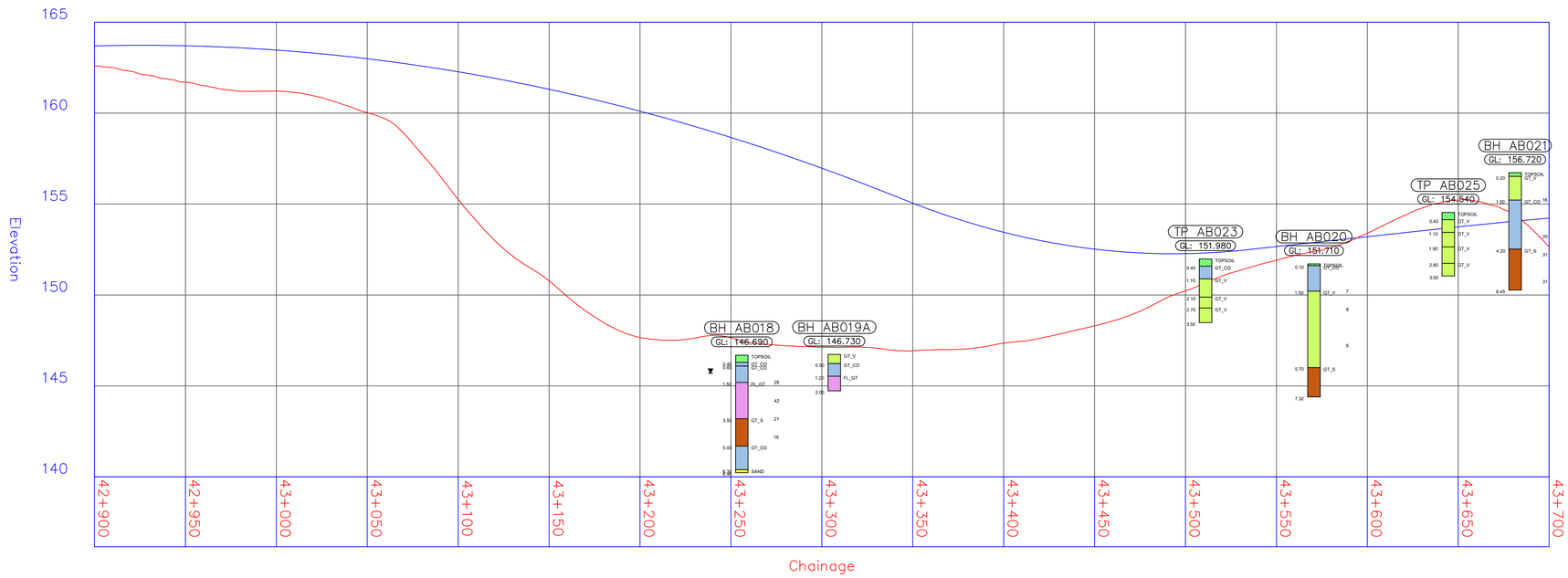
Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE-	000104
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Chainage 42900 – 43700



Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
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EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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	MHAR	MHAR	PCOF	PCOF	---	
	27/10/21	27/10/21	10/12/21	10/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

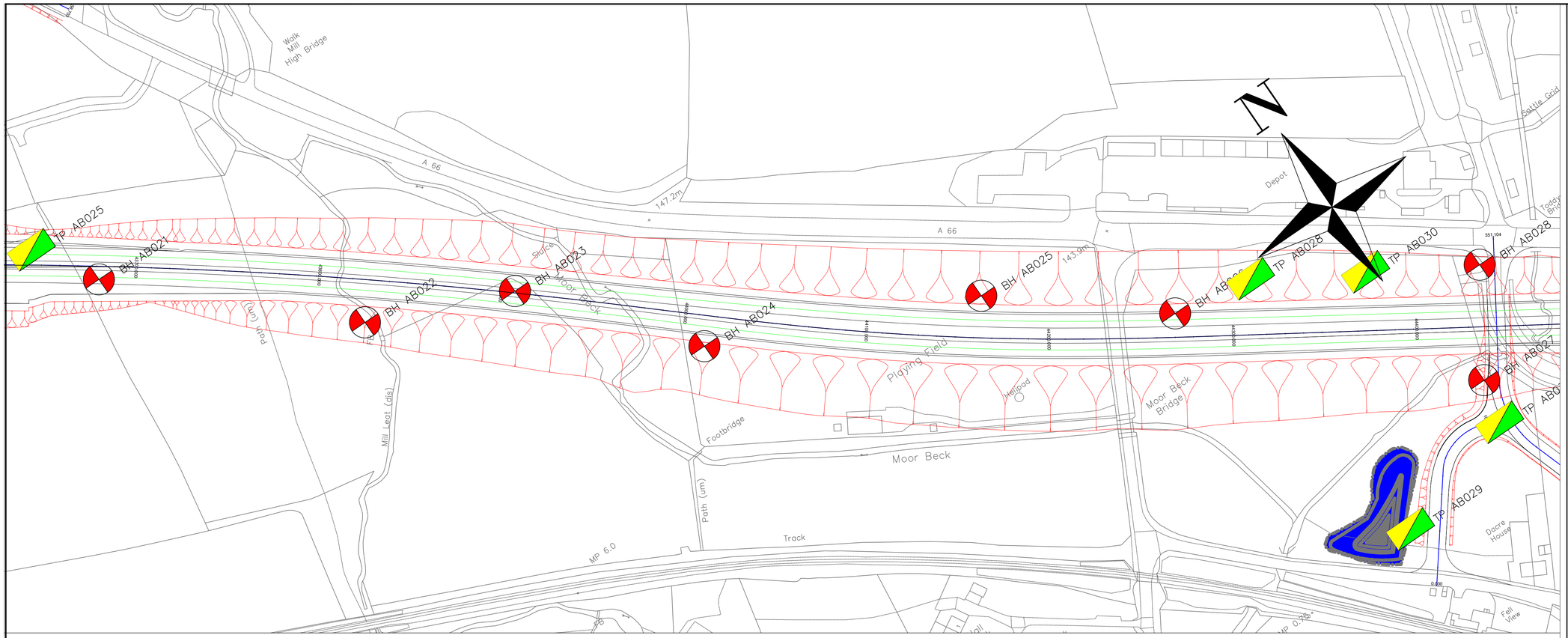
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 5 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

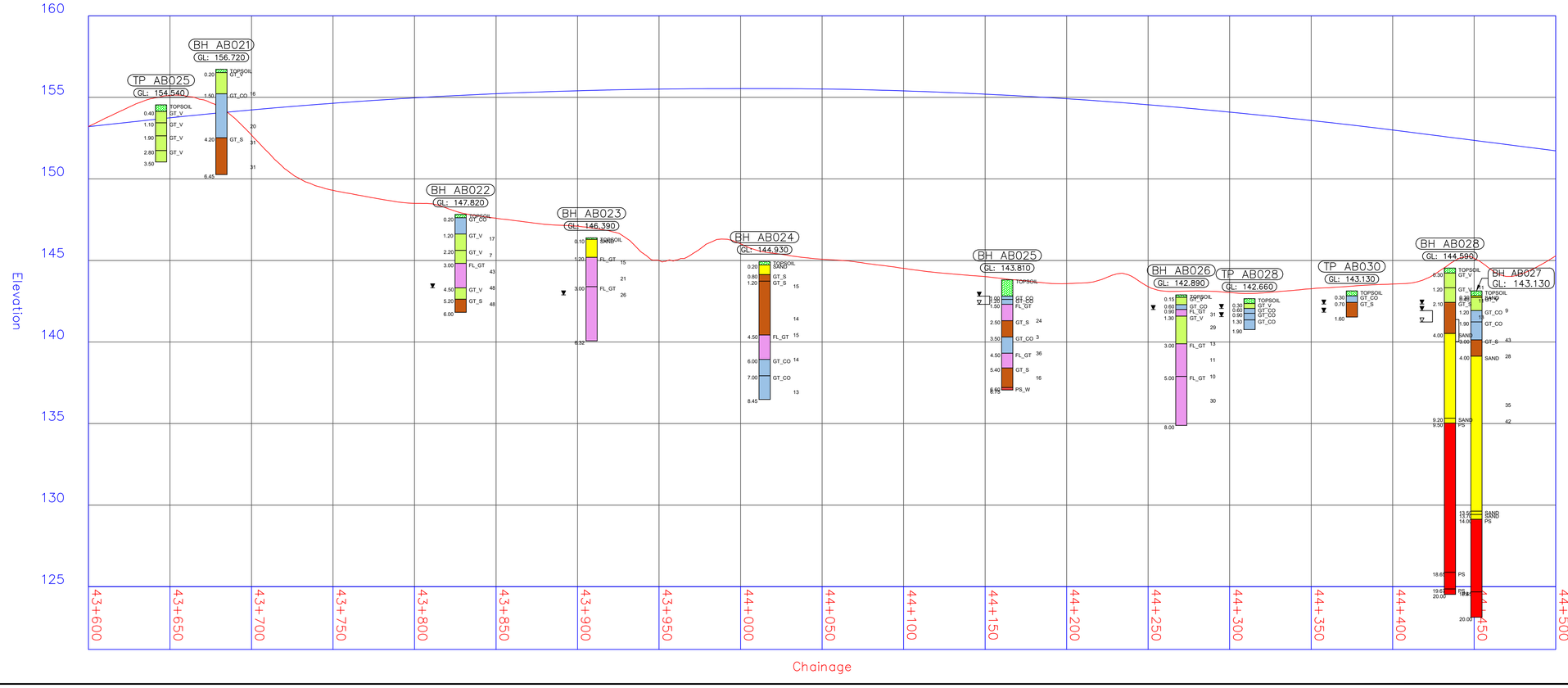
Drawing Number

Project	Originator	Volume	
HE565627 -	AMY -	HGT -	
S06	-DR-	CE-	000105
Location	Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Chainage 43600 – 44500



Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
	GT_S	Glacial Till (granular)
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	BRCK	Brockram – Conglomerate forming part of Penrith SST formation
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01						
	MHAR	MHAR	PCOF	PCOF	---	
	27/10/21	27/10/21	10/12/21	10/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Warcop
GIR Drawings
Sheet 6 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -	S06 -	DR-CE-000106
			Location	Type | Role | Number

Suitability	Suitability Description	Revision
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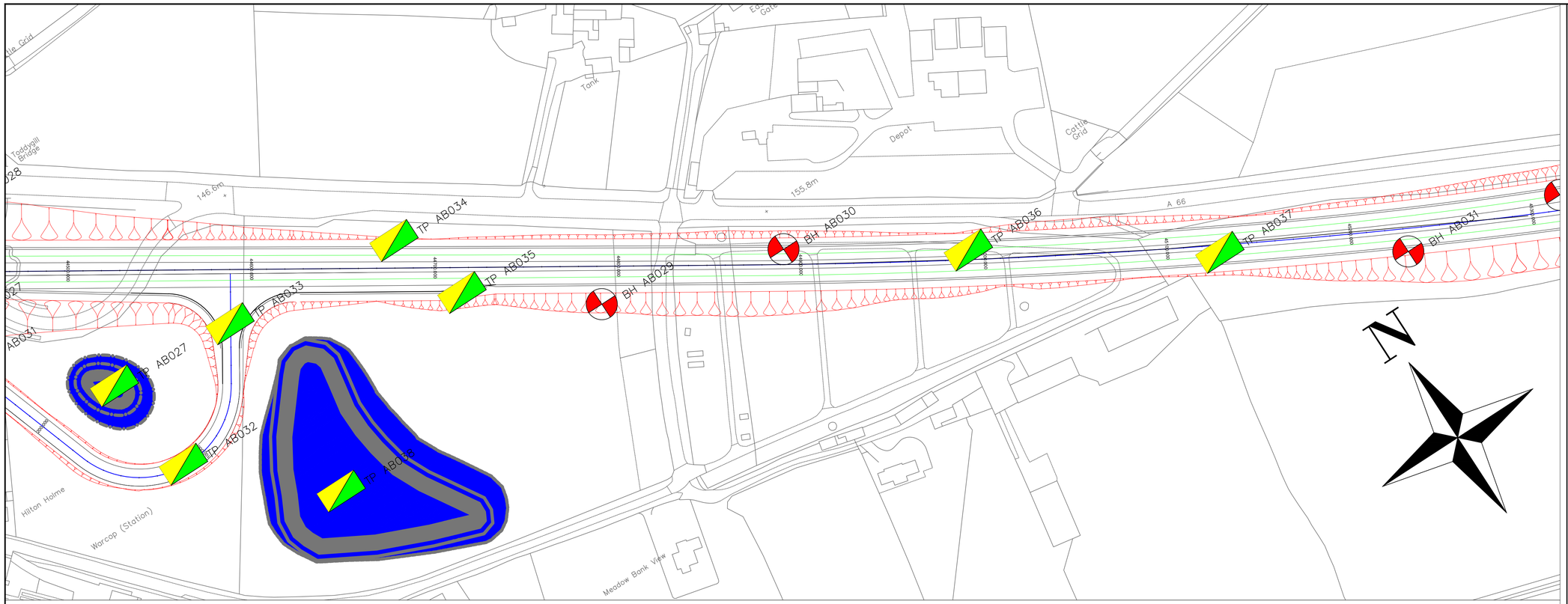

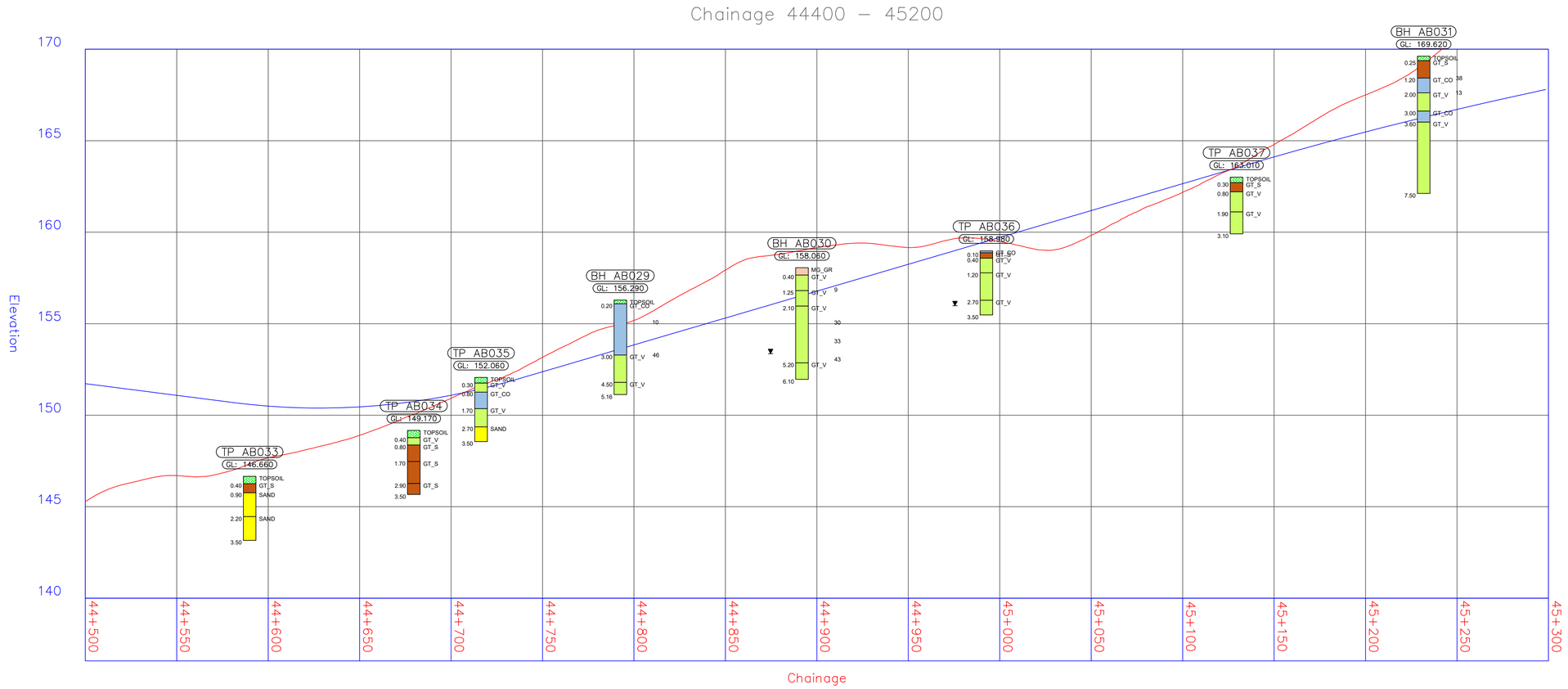

Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
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BRCK	Brockram – Conglomerate forming part of Penrith SST formation
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

Revision					
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P01	MHAR	MHAR	PCOF	PCOF	---
	27/10/21	27/10/21	10/12/21	10/12/21	---
Revision details	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

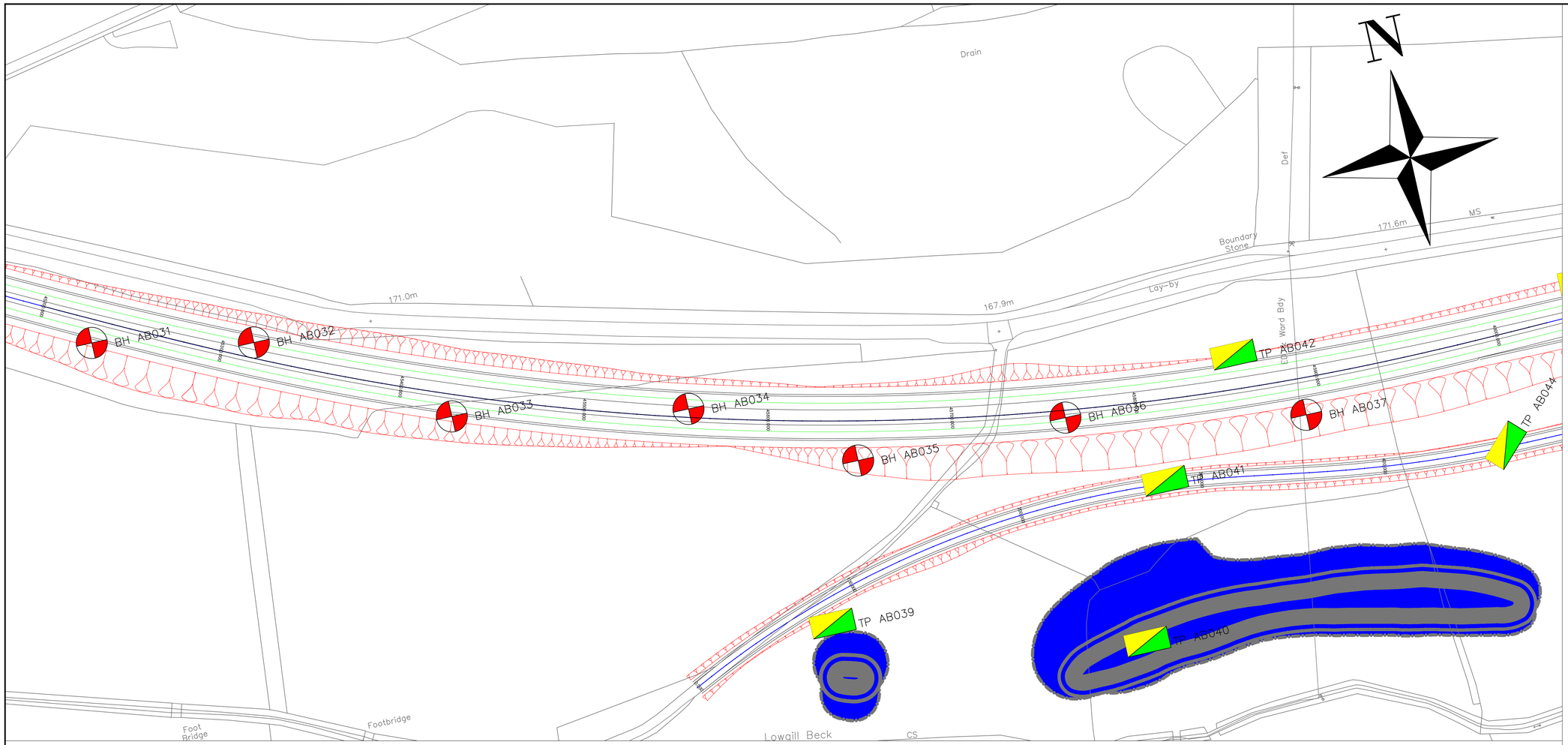
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 7 of 11

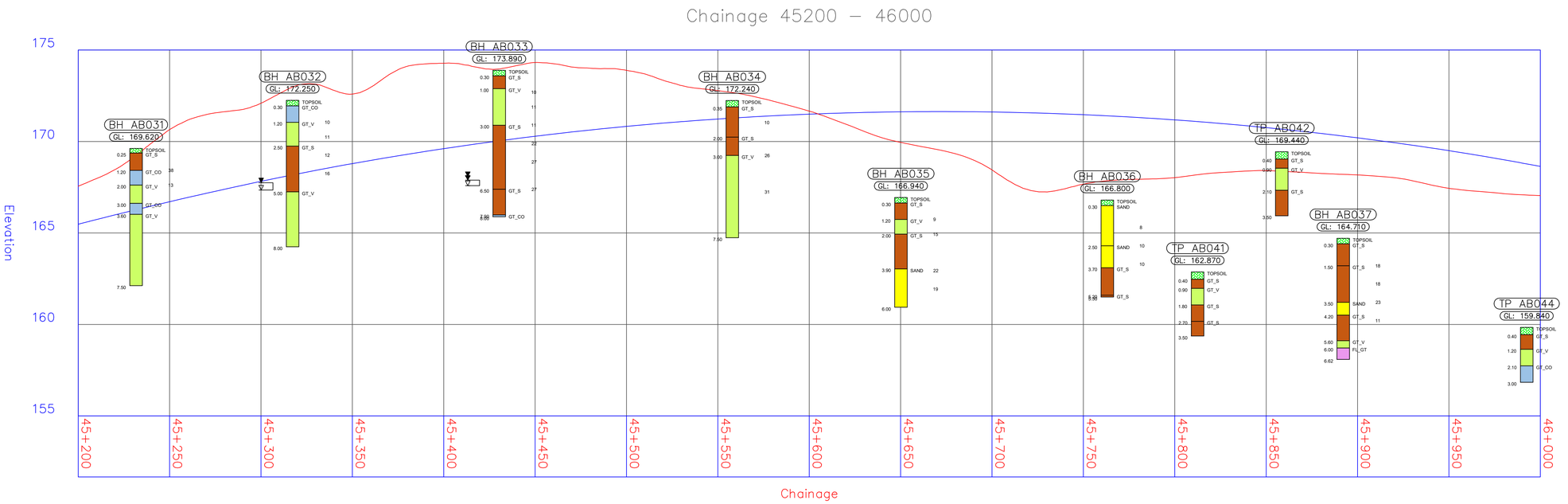
Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	
HE565627 -	AMY -	HGT -	
S06		-DR-CE-	000107
Location		Type | Role |	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01





Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
	GT_S	Glacial Till (granular)
	GT_V	Glacial Till (sandy)
	BRCK	Brockram – Conglomerate forming part of Penrith SST formation
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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	MHAR	MHAR	PCOF	PCOF	---	
	27/10/21	27/10/21	13/12/21	13/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

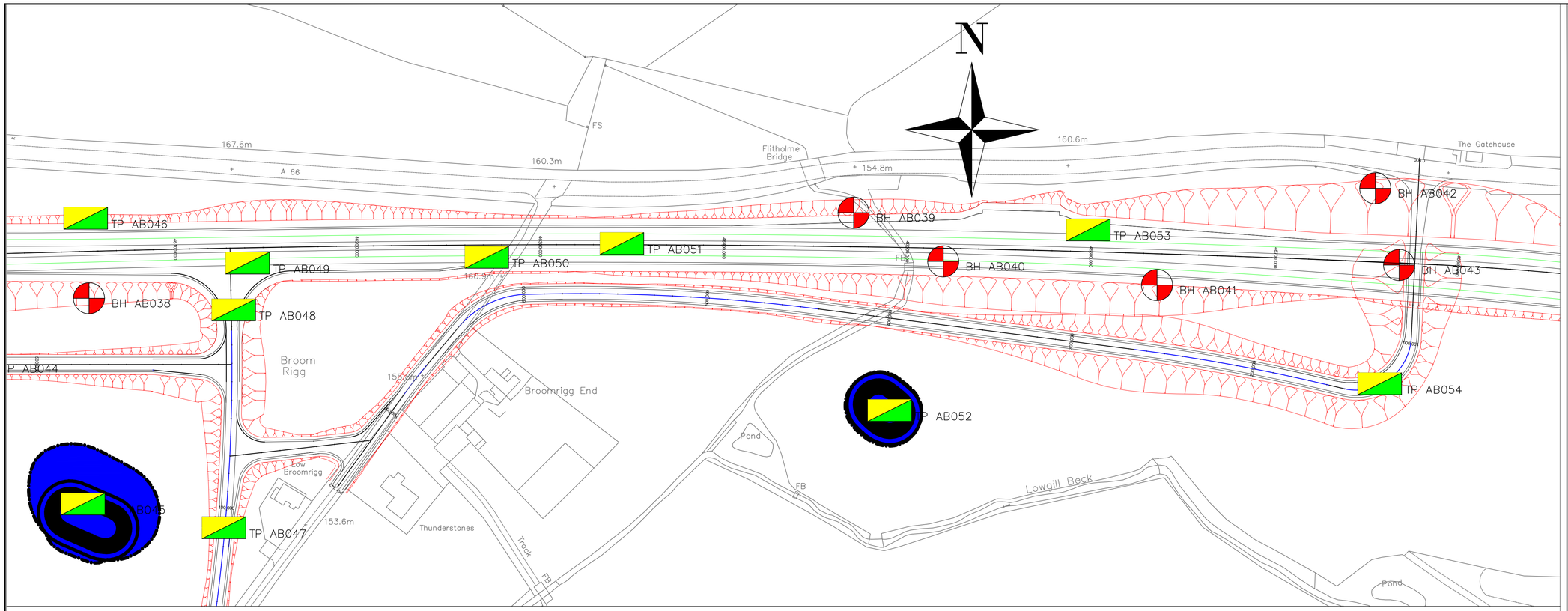
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 8 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

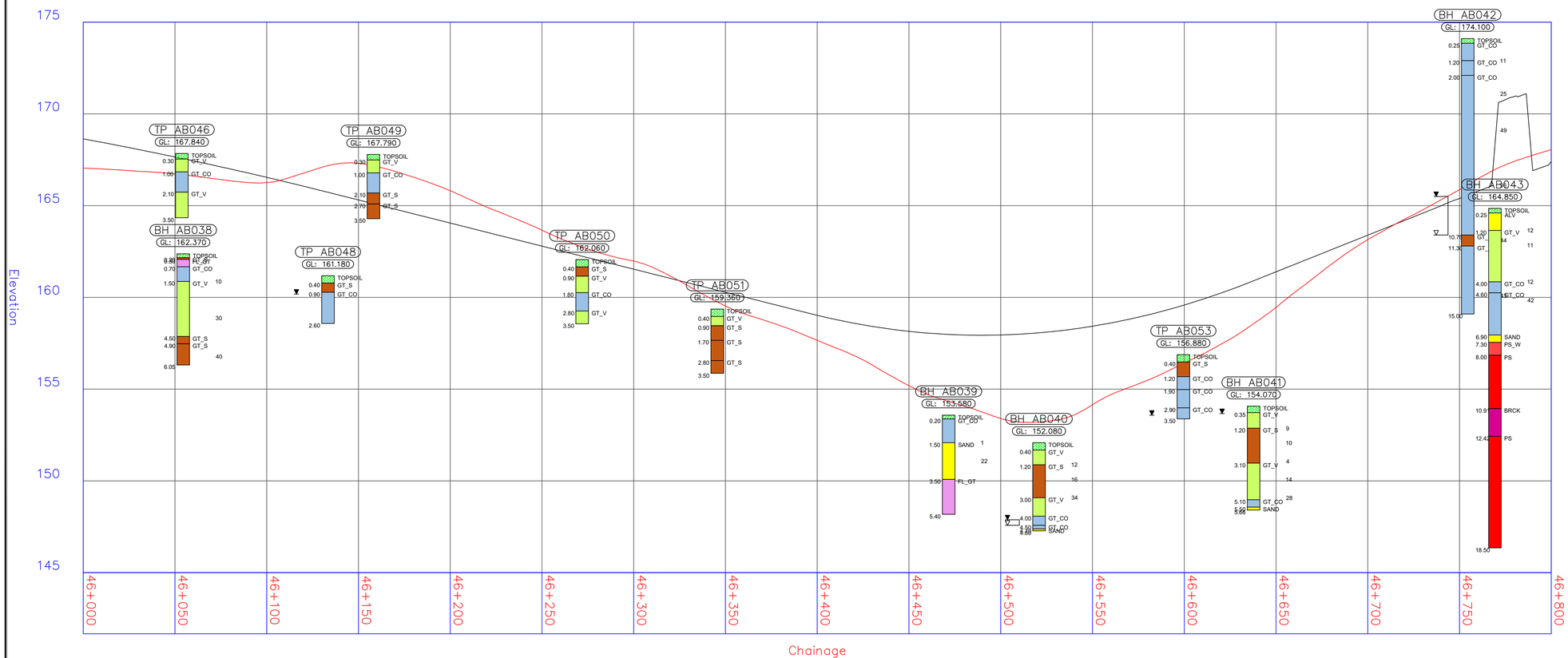
Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE-	000108
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Chainage 46000 – 46800



Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
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	BRCK	Brockram – Conglomerate forming part of Penrith SST formation
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	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01						
	MHAR	MHAR	PCOF	PCOF	---	
	27/10/21	27/10/21	13/12/21	13/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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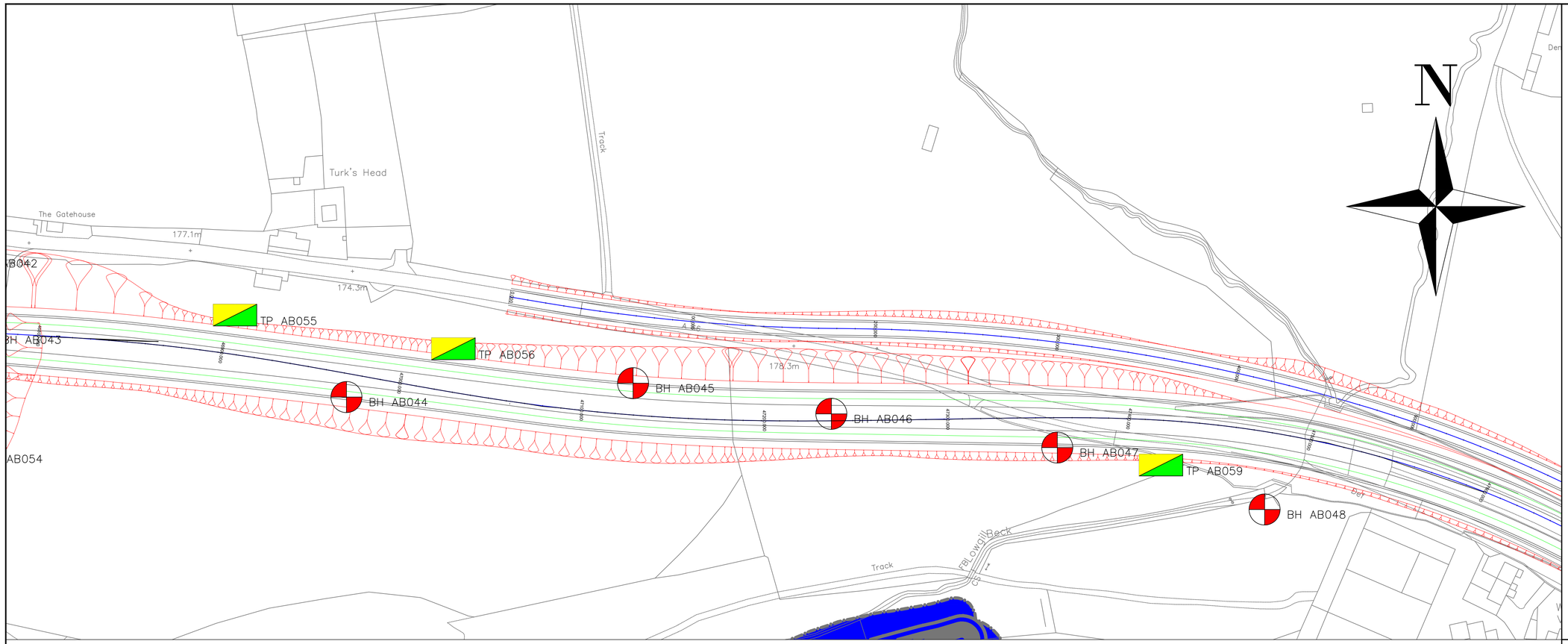
Project Name
A66 Northern Trans-Pennine

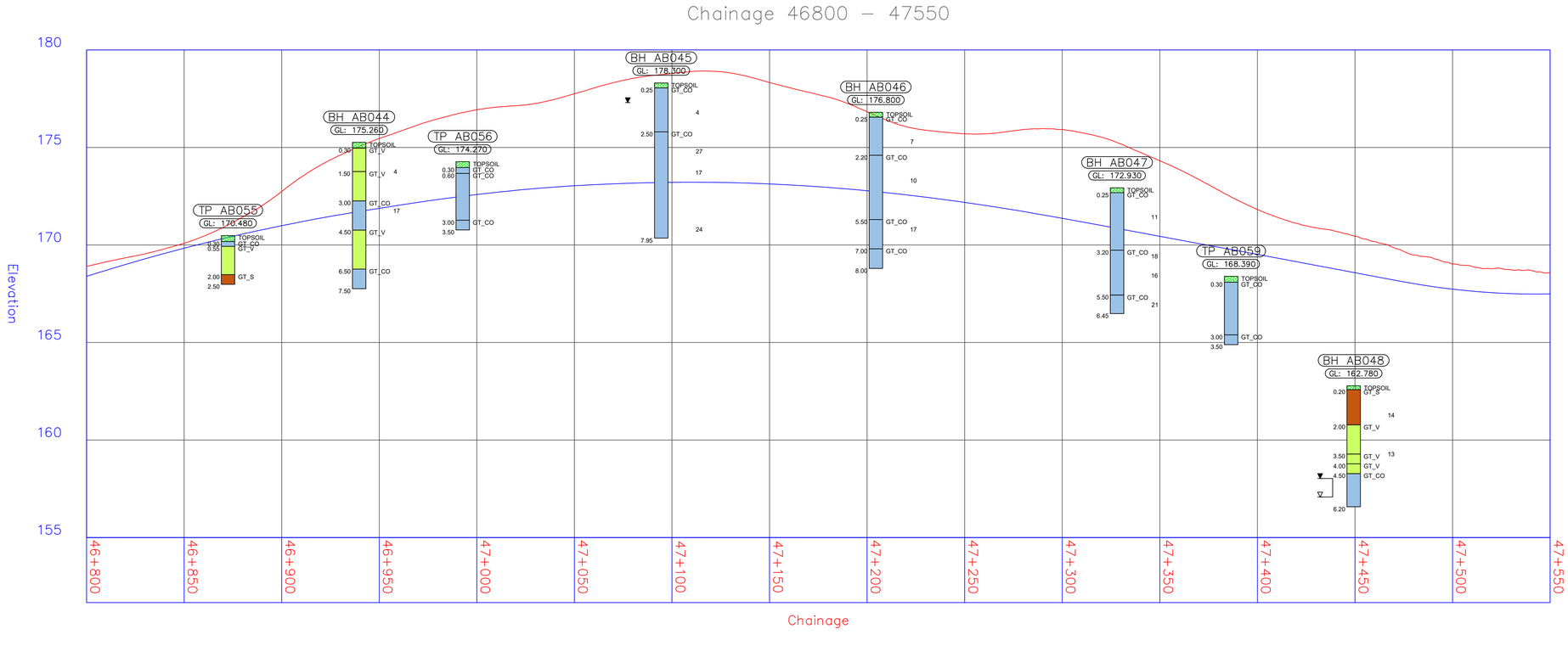
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 9 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S06 -DR-CE- 000109
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01





Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
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	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01						
	MHAR	MHAR	PCOF	PCOF	---	
	27/10/21	27/10/21	13/12/21	13/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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A66 NTP Integrated Project Team

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national highways

Project Name
A66 Northern Trans-Pennine

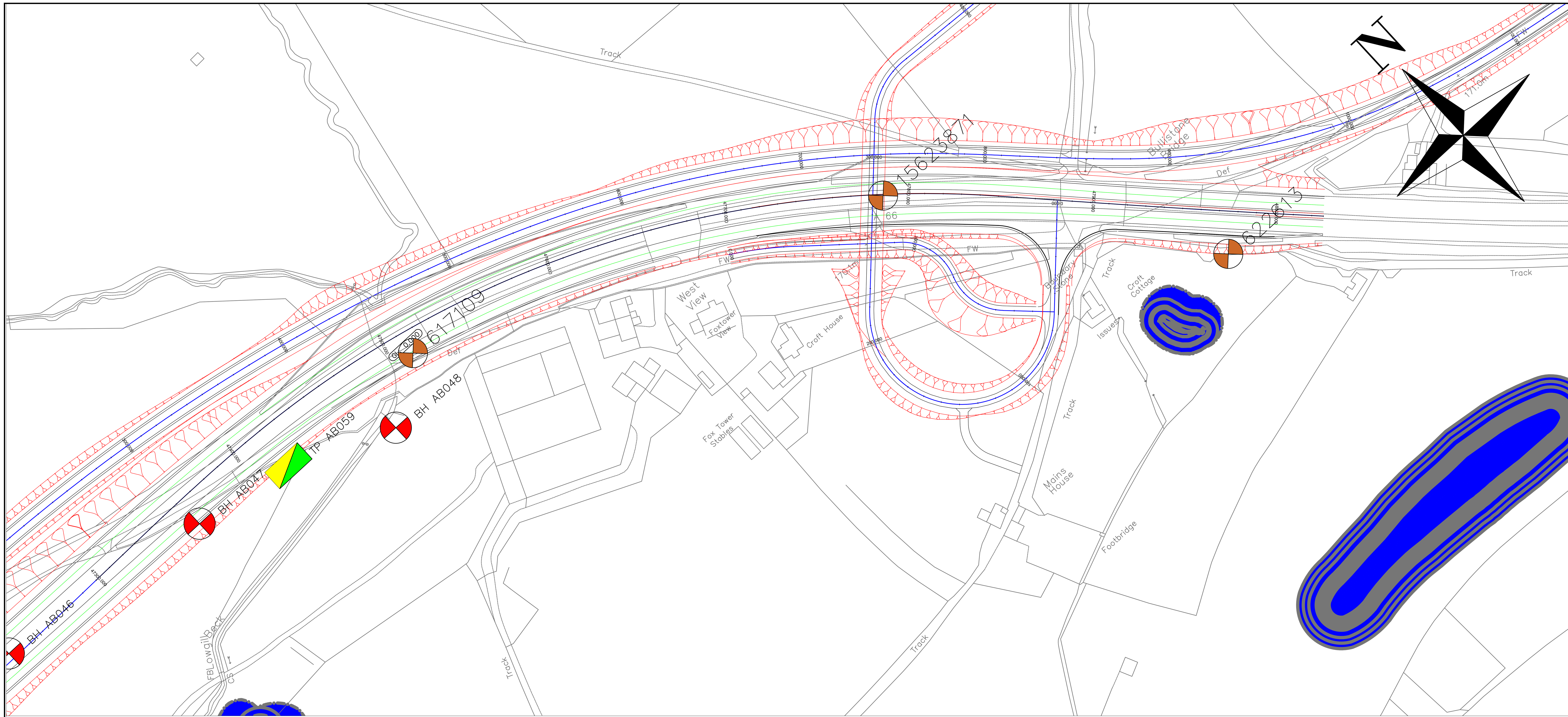
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 10 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	
HE565627 -	AMY -	HGT -	
S06	-DR-	CE-	000110
Location	Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

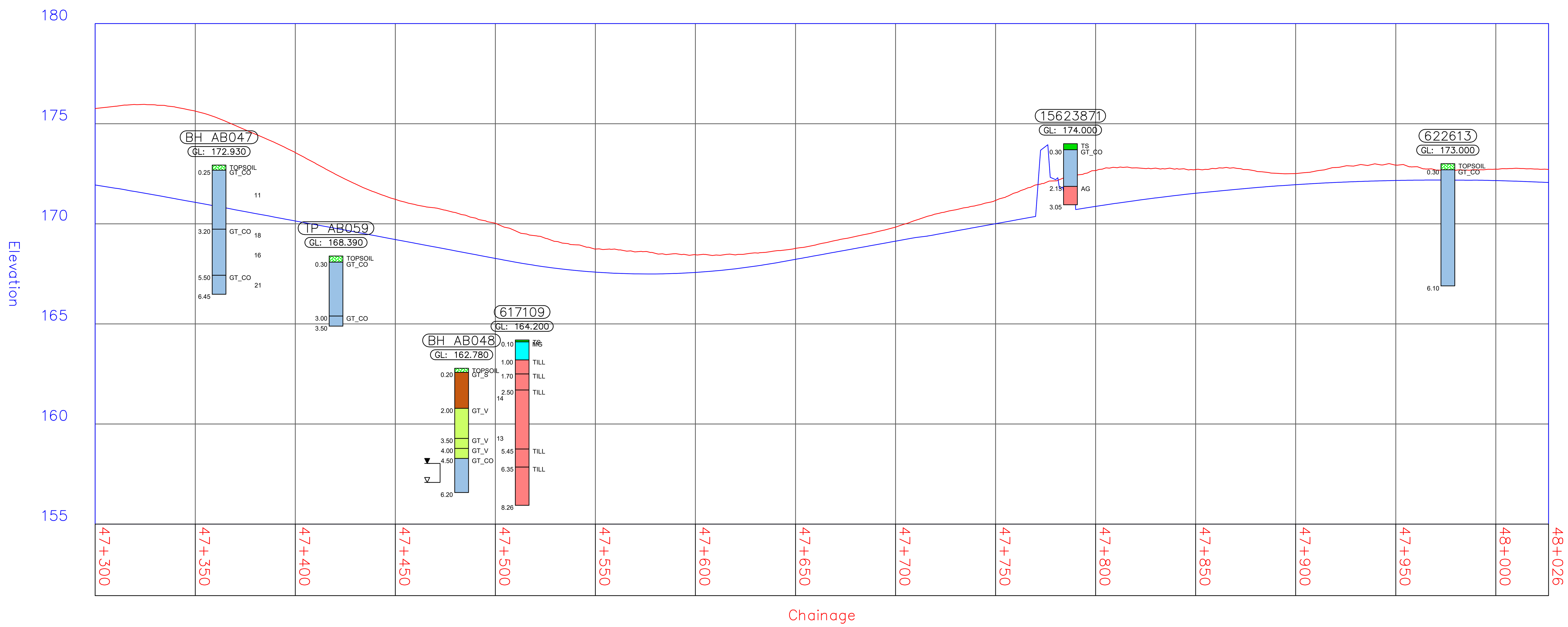


Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
	GT_S	Glacial Till (granular)
	GT_V	Glacial Till (sandy)
	BRCK	Brockram – Conglomerate forming part of Penrith SST formation
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP	Hand Pit
WS	Window Sample
TP	Trial Pits
BH	Boreholes
BH	Historic Boreholes

Chainage 47300 – 48000



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P01	MHAR	MHAR	PCOF	PCOF	---	
	27/10/21	27/10/21	13/12/21	13/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

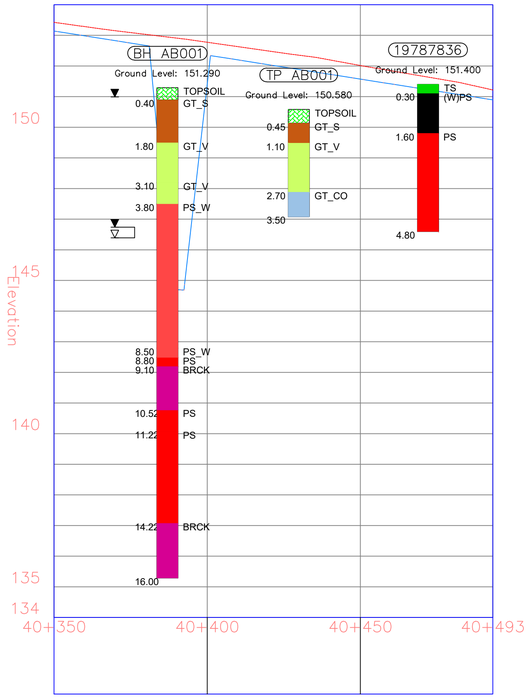
Drawing Title
Package A
Warcop
GIR Drawings
Sheet 11 of 11

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

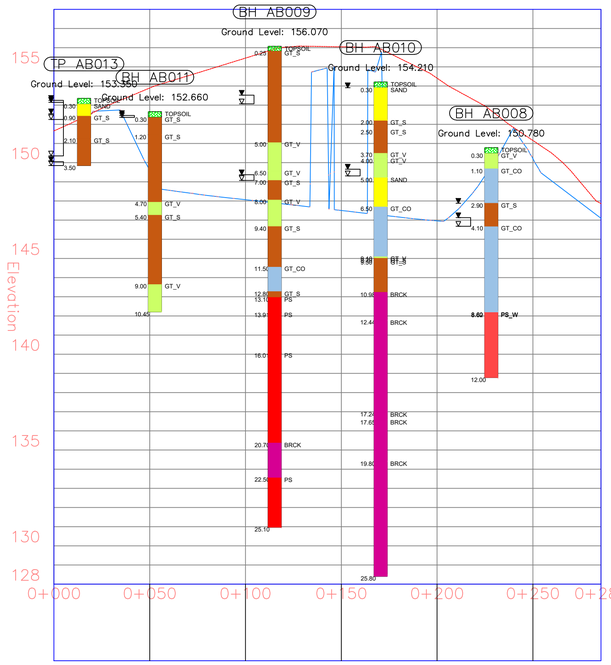
Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S06 -DR-CE-000111
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

Far Bank end Underpass PROFILE

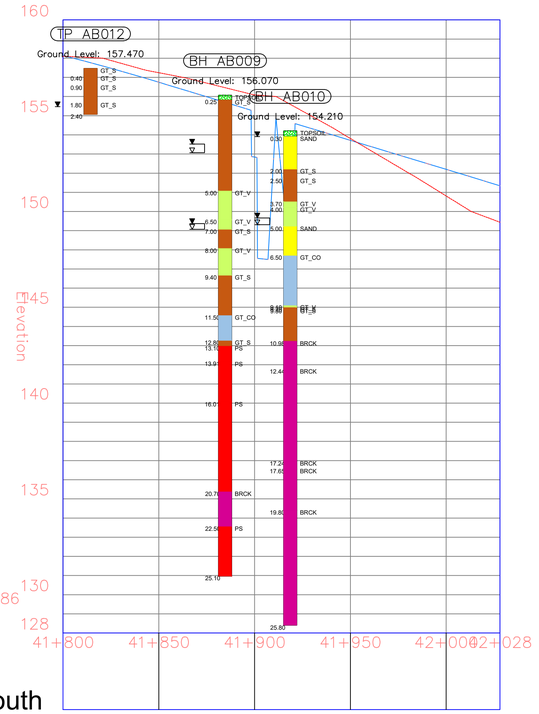


Sandford Underbridge PROFILE



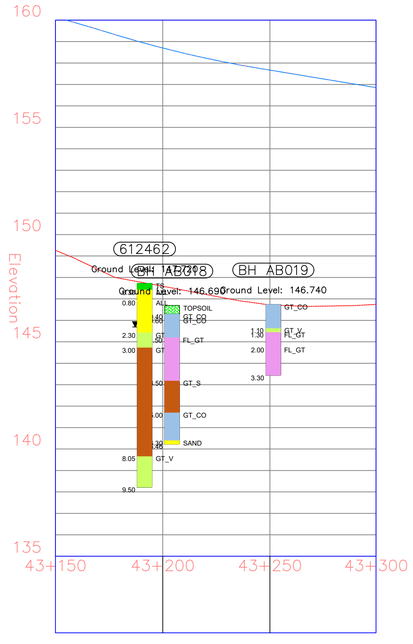
North

Sandford Underbridge Long Section PROFILE

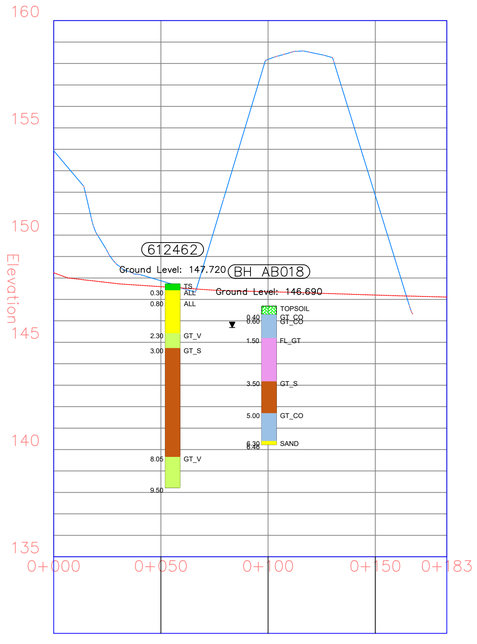


South

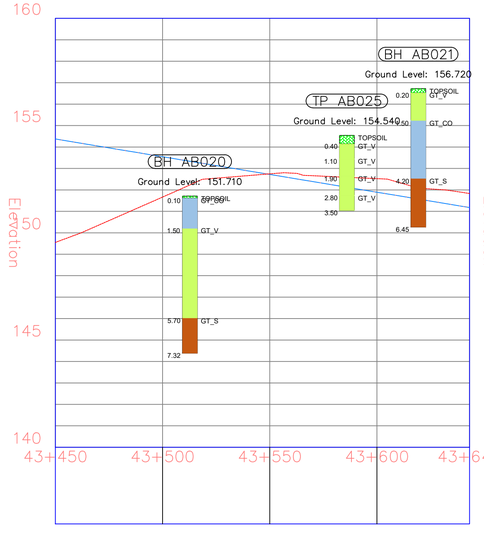
Wheatsheaf Farm Long section PROFILE



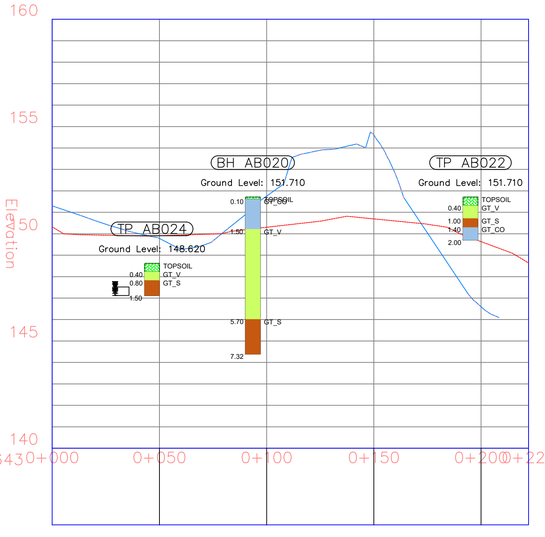
Wheatsheaf Farm Underpass PROFILE



Walkmill Underpass PROFILE



Walkmill Underpass cross section PROFILE



RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

1. Please enter project specific hazards here.

Legend	
TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SSt formation – noted in Warcop section
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

Revision					
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P01	MHAR	MHAR	PCOF	PCOF	---
	09/12/21	09/12/21	13/12/21	13/12/21	---
Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Warcop
Structures Appraisals
Sheet 1 of 3

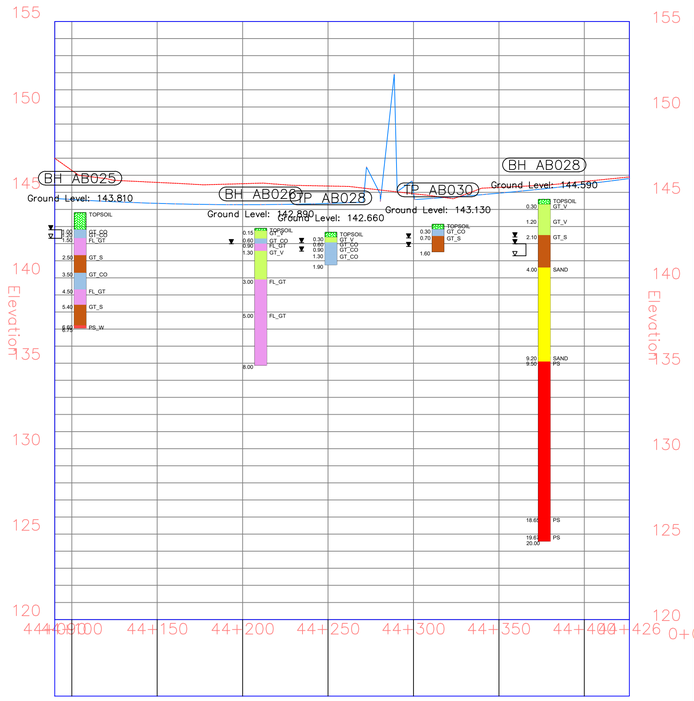
Project Ref. No.	Stage	Scale : NTS @ A1
---	PCF3	Dimensions : M

Drawing Number

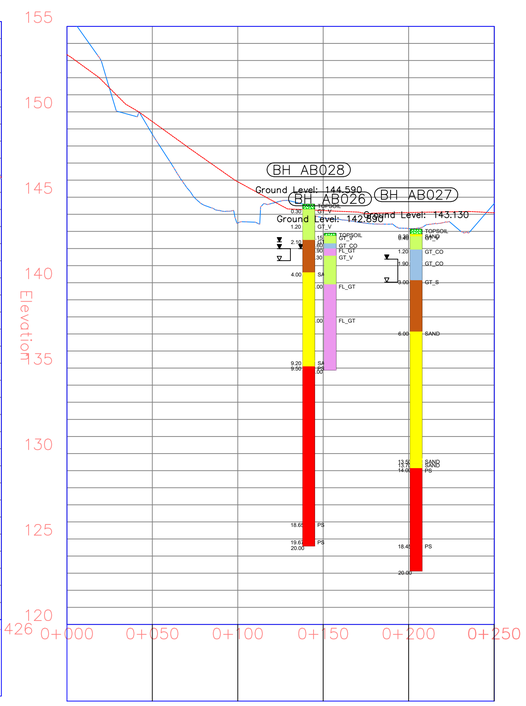
Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06	-DR-CE-	000301		
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

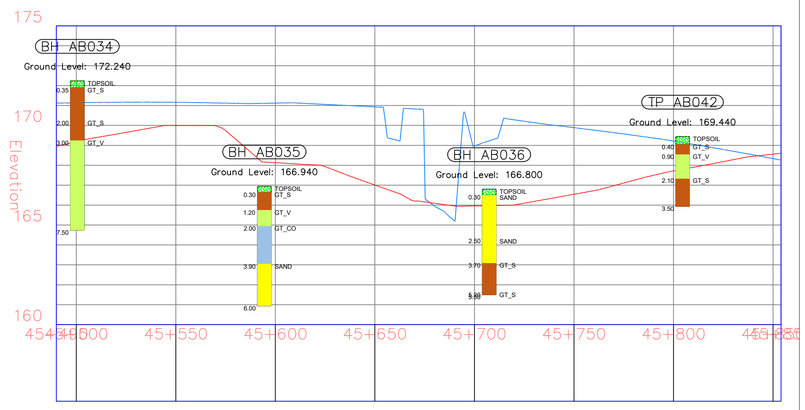
Warcop Bridges PROFILE



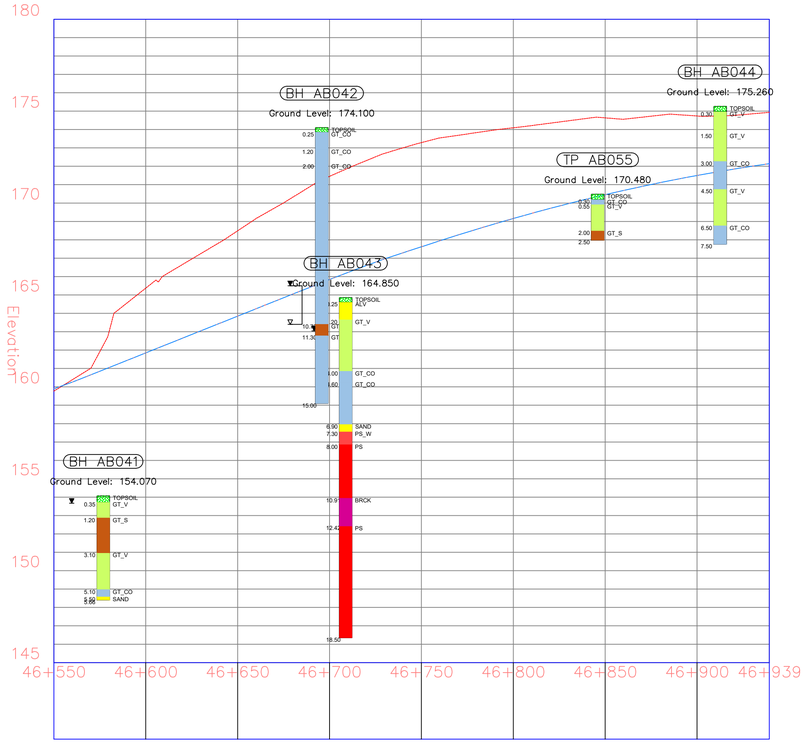
Warcop Bridge cross section PROFILE



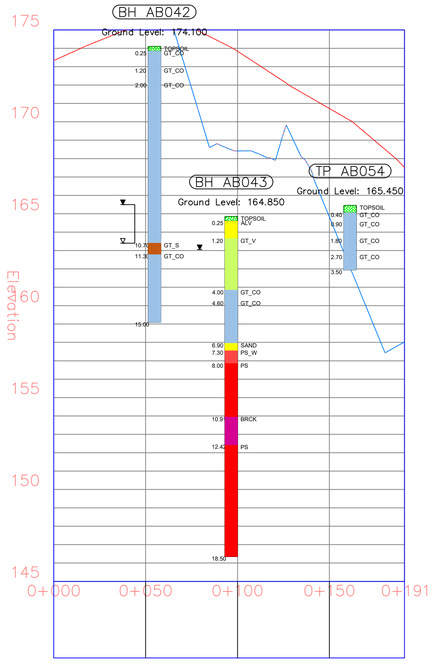
Flitholme Underbridge PROFILE



Gatehouse Overbridge PROFILE



Gatehouse Overbridge cross section PROFILE



RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

1. Please enter project specific hazards here.

Legend	
TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
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PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

Revision					
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P01					
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	09/12/21	09/12/21	13/12/21	13/12/21	---
Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Warcop
Structures Appraisals
Sheet 2 of 3

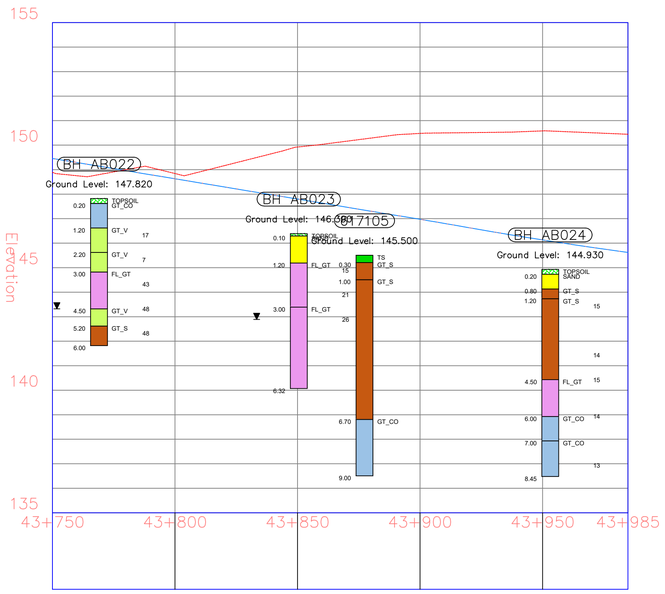
Project Ref. No.	Stage	Scale : NTS @ A1
---	PCF3	Dimensions : M

Drawing Number

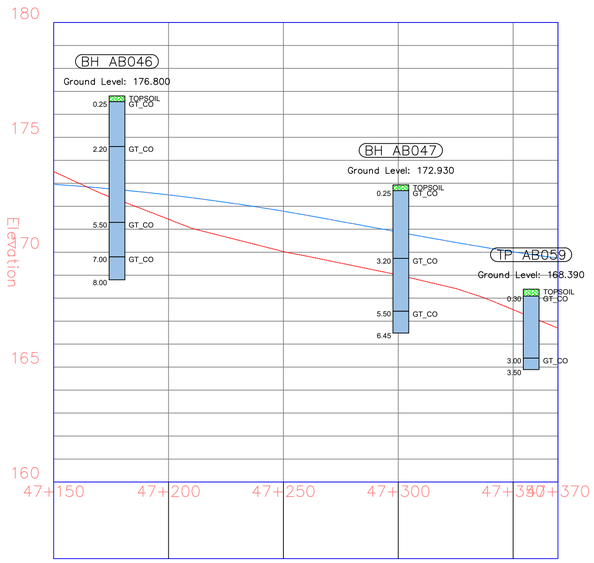
Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06	-DR-	CE-	000302	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

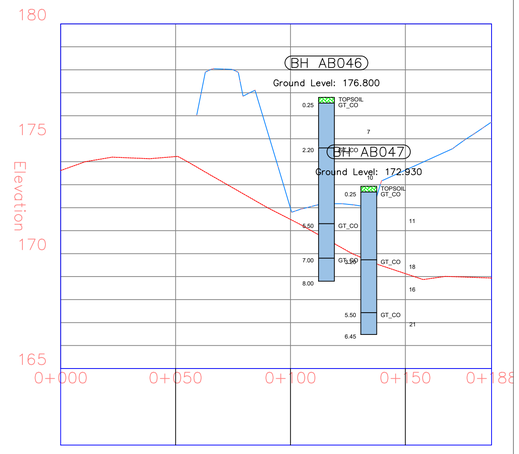
Moor Beck PROFILE



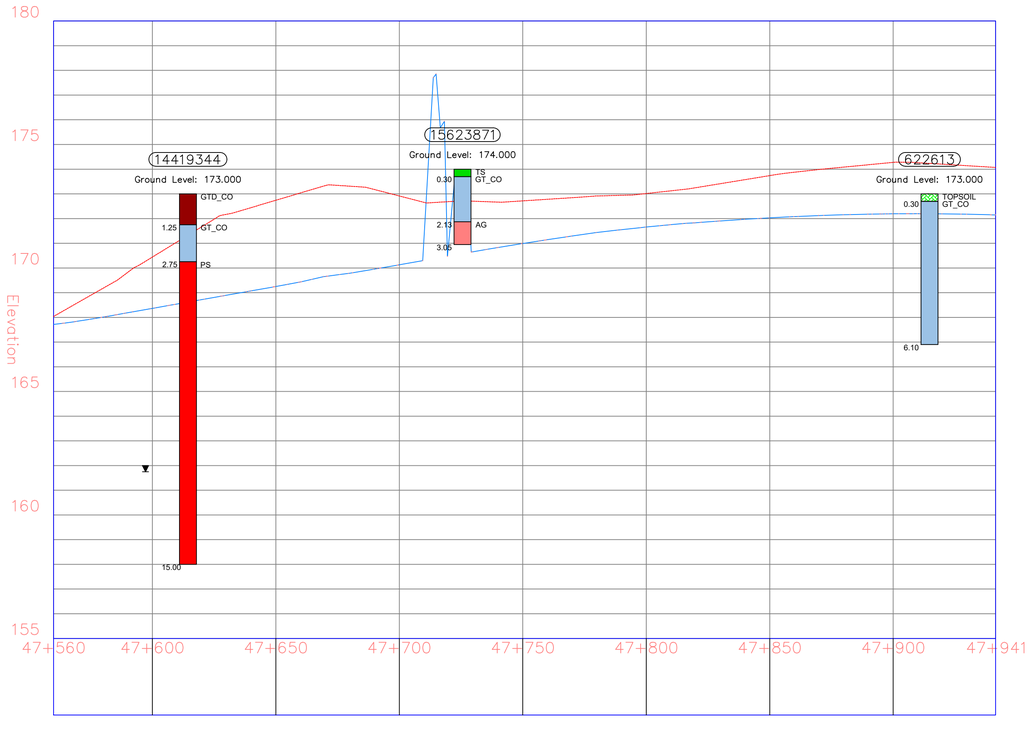
Turks Head Underpass PROFILE



Turks Head Underpass cross section PROFILE



West View Farm Overbridge PROFILE



RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

1. Please enter project specific hazards here.

Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SSt formation – noted in Warcop section
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

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P01	MHAR	MHAR	PCOF	PCOF	---	
	09/12/21	09/12/21	13/12/21	13/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Warcop
Structures Appraisal
Sheet 3 of 3

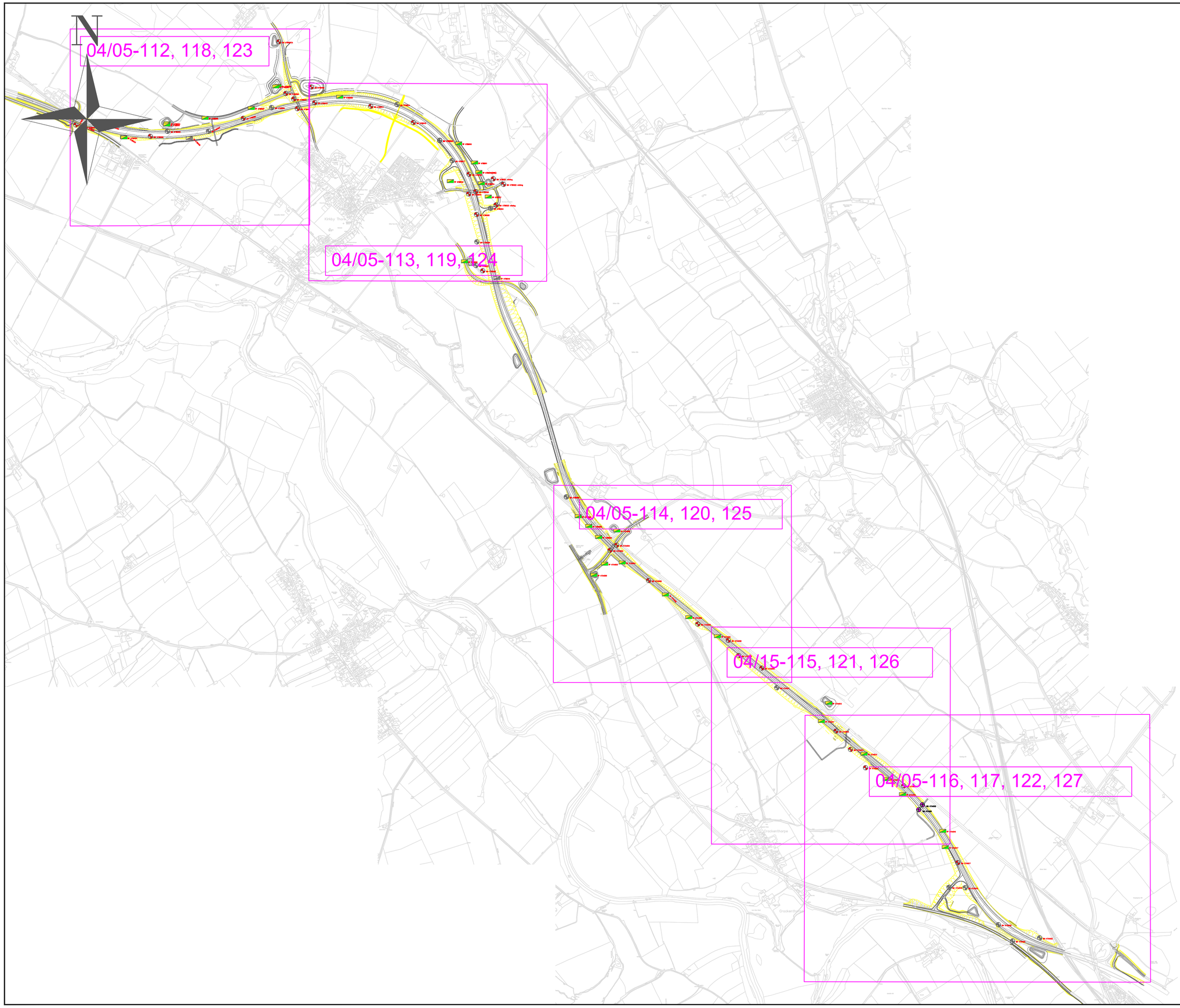
Project Ref. No.	Stage	Scale : N/A @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627 -	AMY -	HGT -			
S06			-DR-	CE-	000303
Location			Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

A.3 Temple Sowerby to Appleby: Geo-environmental (Leachate, Groundwater and Soils)



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	17/01/22	17/01/22	17/01/22	17/01/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

Designer
Amey OW Limited
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national highways

Project Name
A66 Northern Trans-Pennine

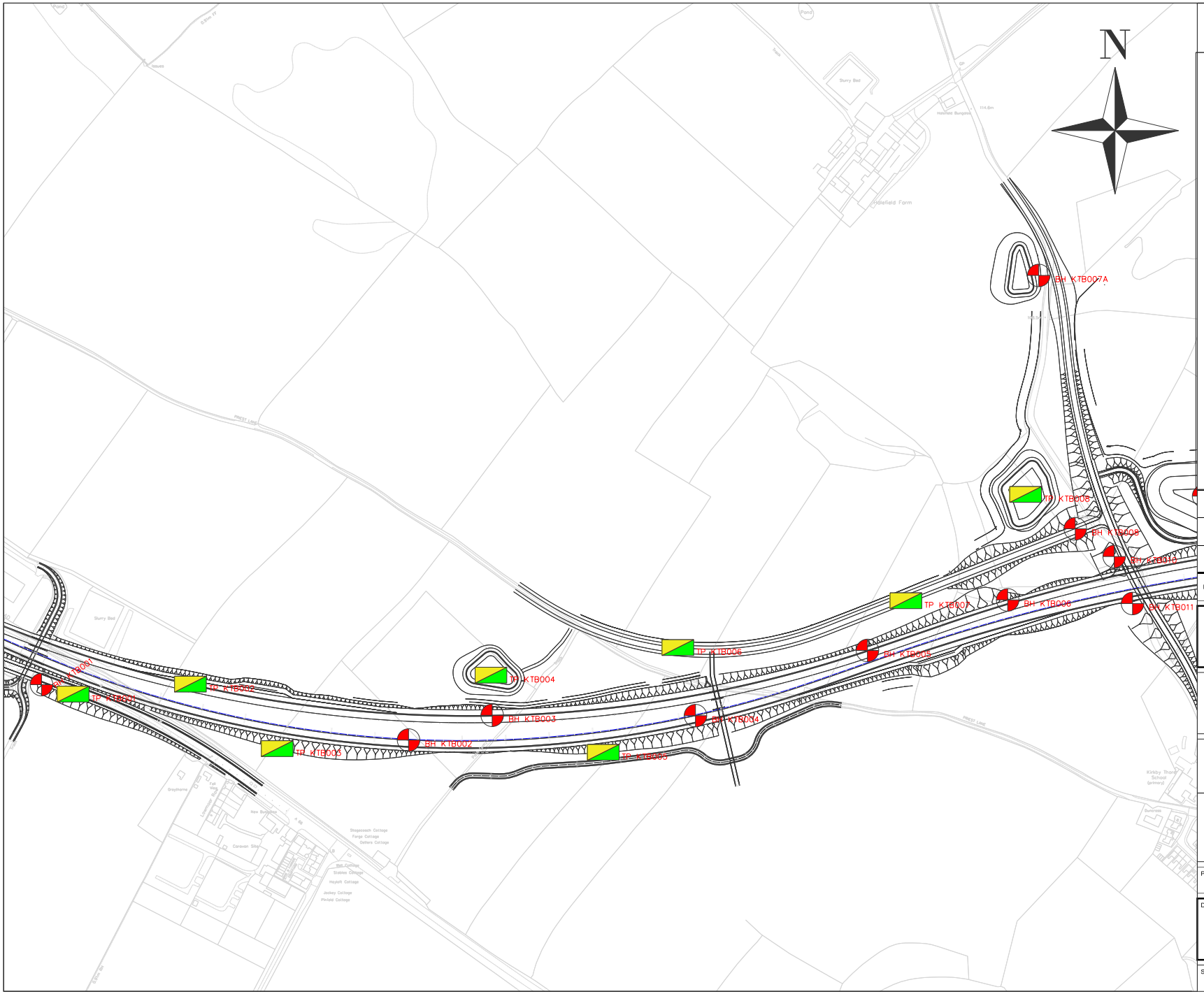
Drawing Title
Package A
Temple Sowerby to Appleby
Key to Geo-env drawings

Project Ref. No.	Stage	Scale : 1:10000 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627 -	AMY	- HGT	-		
S0405		-DR-	CE-	000128	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Geo-Environmental Hazards

- *None noted*

HDTP	Hand Pit
HDTP	Unused Hand Pit
WS	Window Sample
WS	Unused Window Sample
TP	Trial Pits
TP	Unused Trial Pits
BH	Boreholes
BH	Unused Boreholes

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
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	—	—	—	—	—
	—	—	—	—	—
P01	MHAR	MHAR	JMOR	GMCG	—
	21/12/21	21/12/21	21/12/21	21/12/21	—
P02	MHAR	MHAR	JMOR	GMCG	—
	17/01/22	17/01/22	17/01/22	17/01/22	—
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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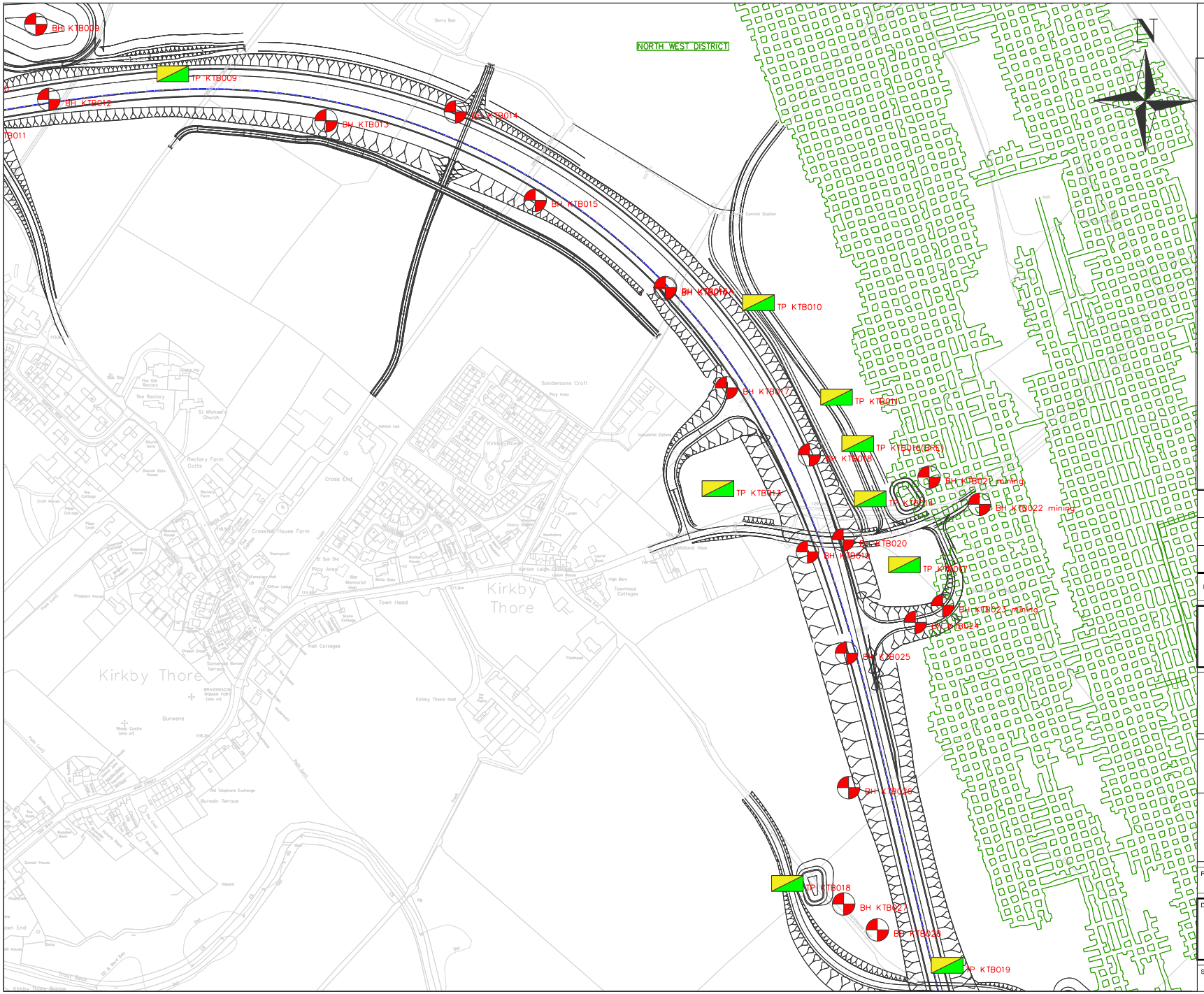
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTB)
Geo-Environmental Drawings
Soils Sheet 1 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000123
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



Geo-Environmental Hazards

- *None noted*

HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

–	–				
	–	–	–	–	–
	–	–	–	–	–
P01	MHAR	MHAR	JMOR	GMCG	–
	21/12/21	21/12/21	21/12/21	21/12/21	–
P02	MHAR	MHAR	JMOR	GMCG	–
	17/01/22	17/01/22	17/01/22	17/01/22	–

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

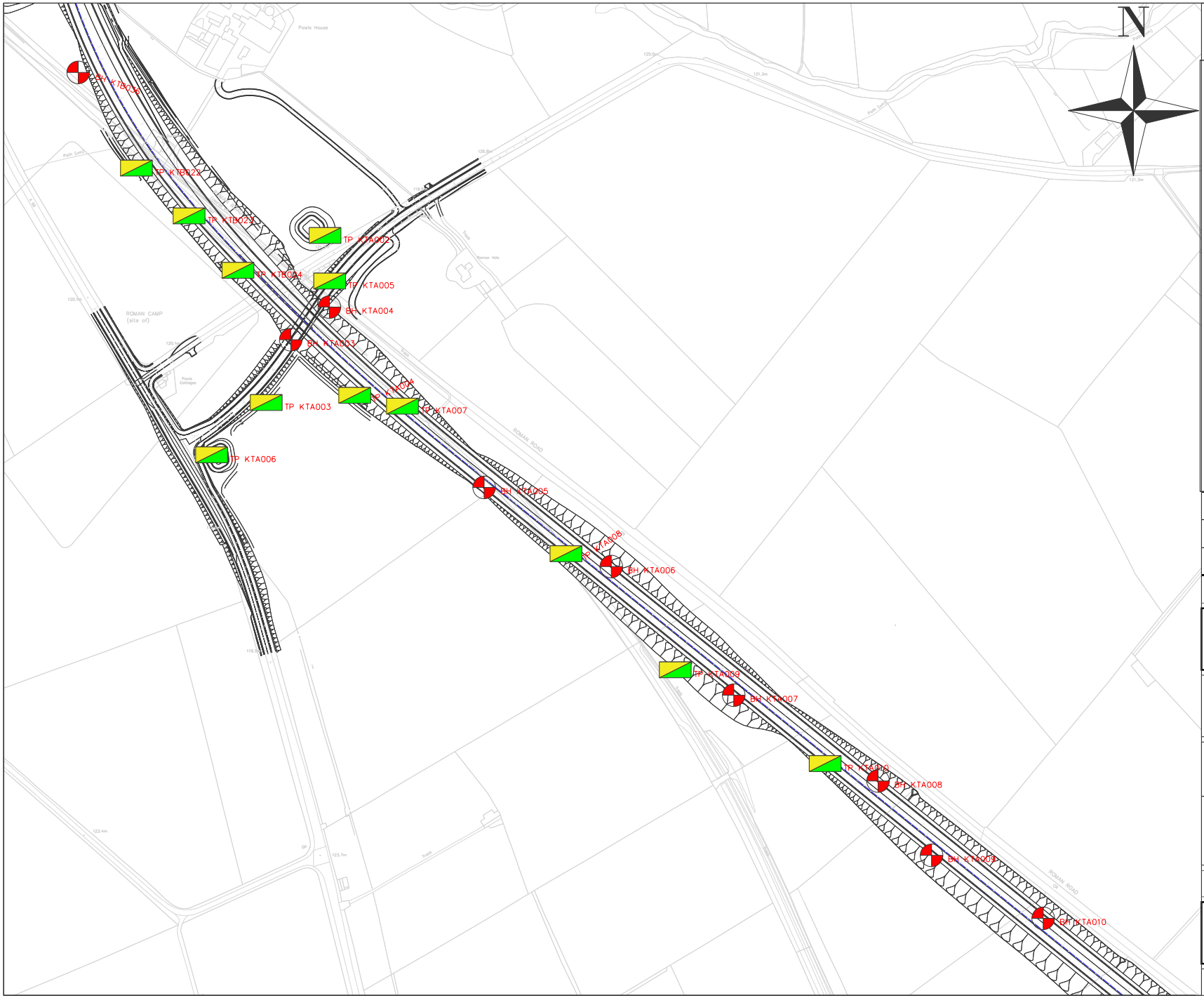
Drawing Title
Package A
Temple Sowerby to Appleby (KTB)
Geo-Environmental Drawings
Soils Sheet 2 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
–	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S0405	-DR-	CE -	000124	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



Geo-Environmental Hazards

- *None noted*

HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
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P01	MHAR	MHAR	JMOR	GMCG	—
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P02	MHAR	MHAR	JMOR	GMCG	—
	17/01/22	17/01/22	17/01/22	17/01/22	—
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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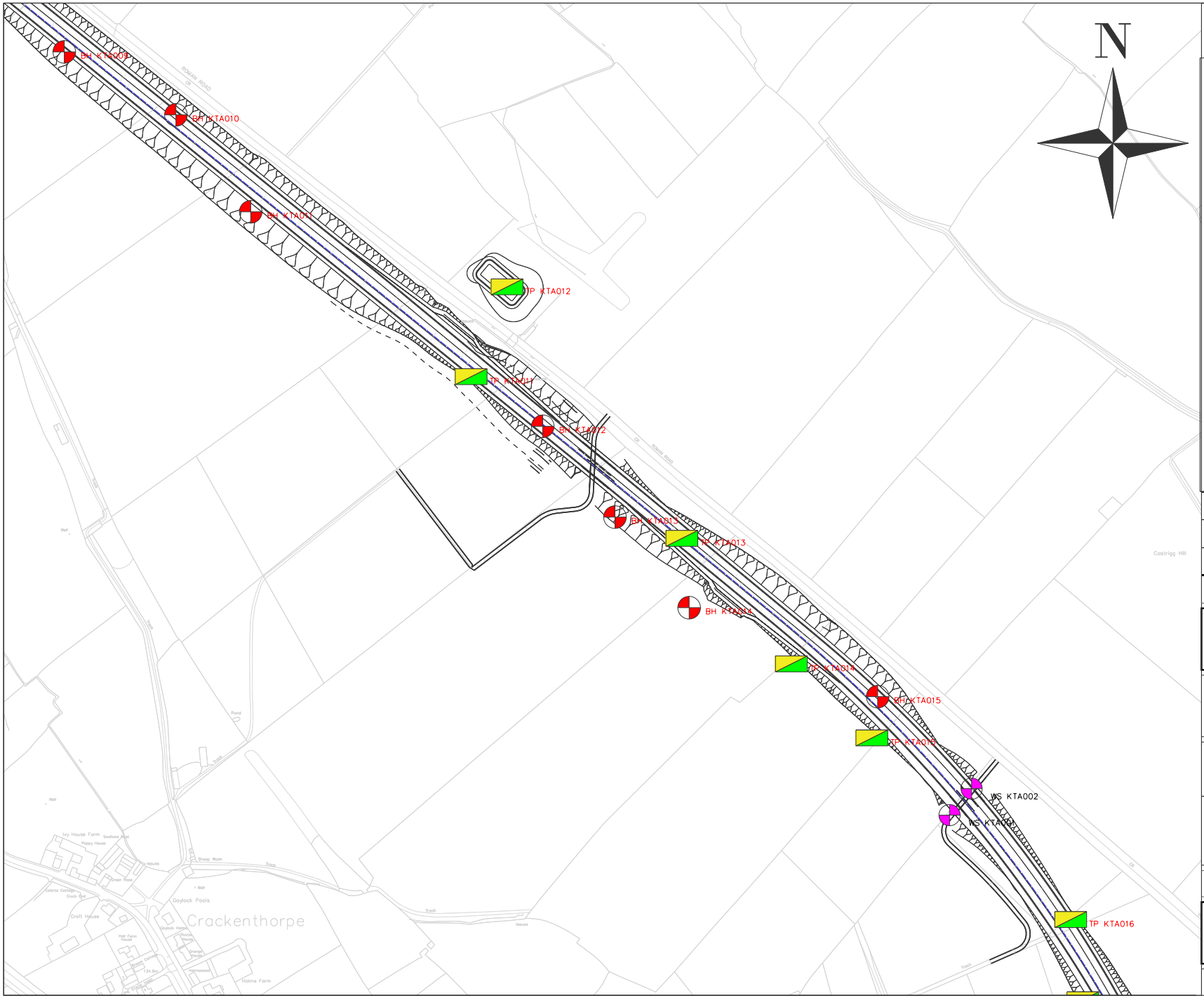
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Soils Sheet 3 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000125
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



Geo-Environmental Hazards

- *None noted*

HDTP	Hand Pit
HDTP	Unused Hand Pit
WS	Window Sample
WS	Unused Window Sample
TP	Trial Pits
TP	Unused Trial Pits
BH	Boreholes
BH	Unused Boreholes

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
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P01	MHAR	MHAR	JMOR	GMCG	—
	21/12/21	21/12/21	21/12/21	21/12/21	—
P02	MHAR	MHAR	JMOR	GMCG	—
	17/01/22	17/01/22	17/01/22	17/01/22	—
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

Designer
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national highways

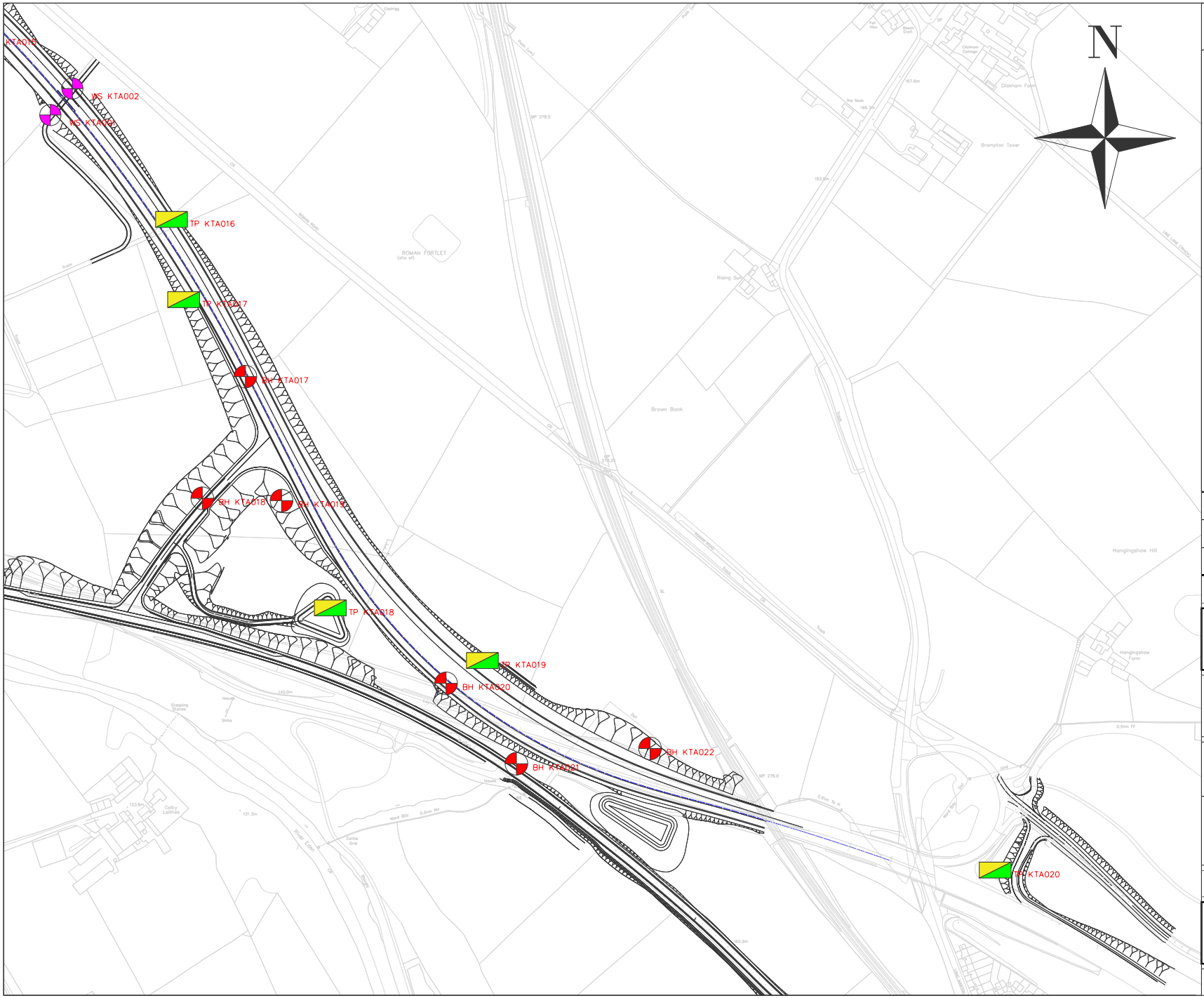
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Soils Sheet 4 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
Location | Type | Role | Number
S0405 -DR-CE- 000126

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



Geo-Environmental Hazards

- *None noted*

HDTP	Hand Pit
HDTP	Unused Hand Pit
WS	Window Sample
WS	Unused Window Sample
TP	Trial Pits
TP	Unused Trial Pits
BH	Boreholes
BH	Unused Boreholes

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
—	—	—	—	—	—
	—	—	—	—	—
	—	—	—	—	—
P01	MHAR	MHAR	JMOR	GMCG	—
	21/12/21	21/12/21	21/12/21	21/12/21	—
P02	MHAR	MHAR	JMOR	GMCG	—
	17/01/22	17/01/22	17/01/22	17/01/22	—
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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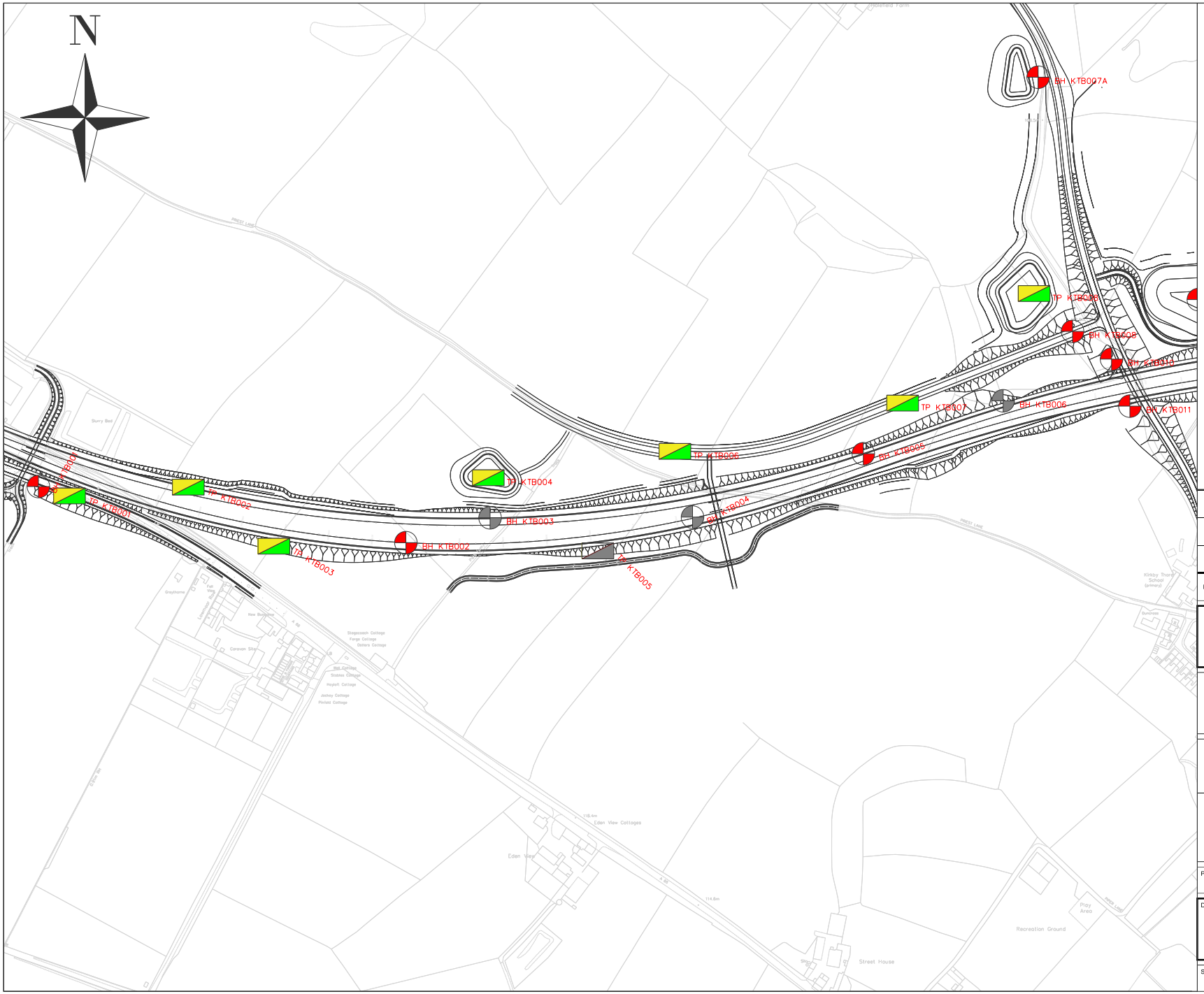
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Soils Sheet 5 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000127
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	—

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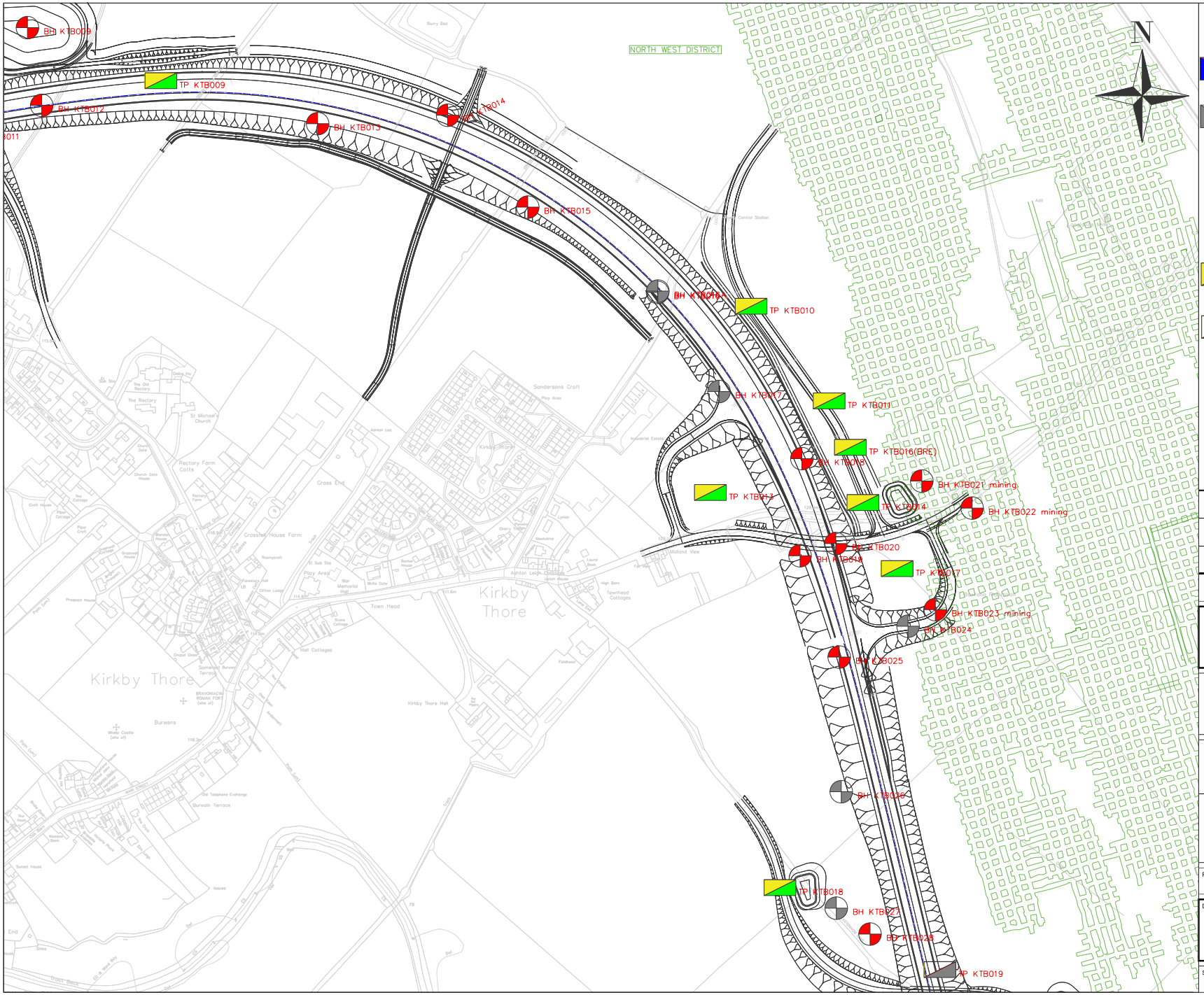
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTB)
Geo-Environmental Drawings
Leachate Sheet 1 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000112
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

–	–					
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	–	–	–	–	–	–
–	–					
	–	–	–	–	–	–
	–	–	–	–	–	–
P01	MHAR	MHAR	JMOR	GMCG		–
	21/12/21	21/12/21	21/12/21	21/12/21		–

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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Drawing Title
Package A
Temple Sowerby to Appleby (KTB)
Geo-Environmental Drawings
Leachate Sheet 2 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
–	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S0405		-DR-CE-	000113	
Location		Type	Role	Number

Suitability	Suitability Description	Revision
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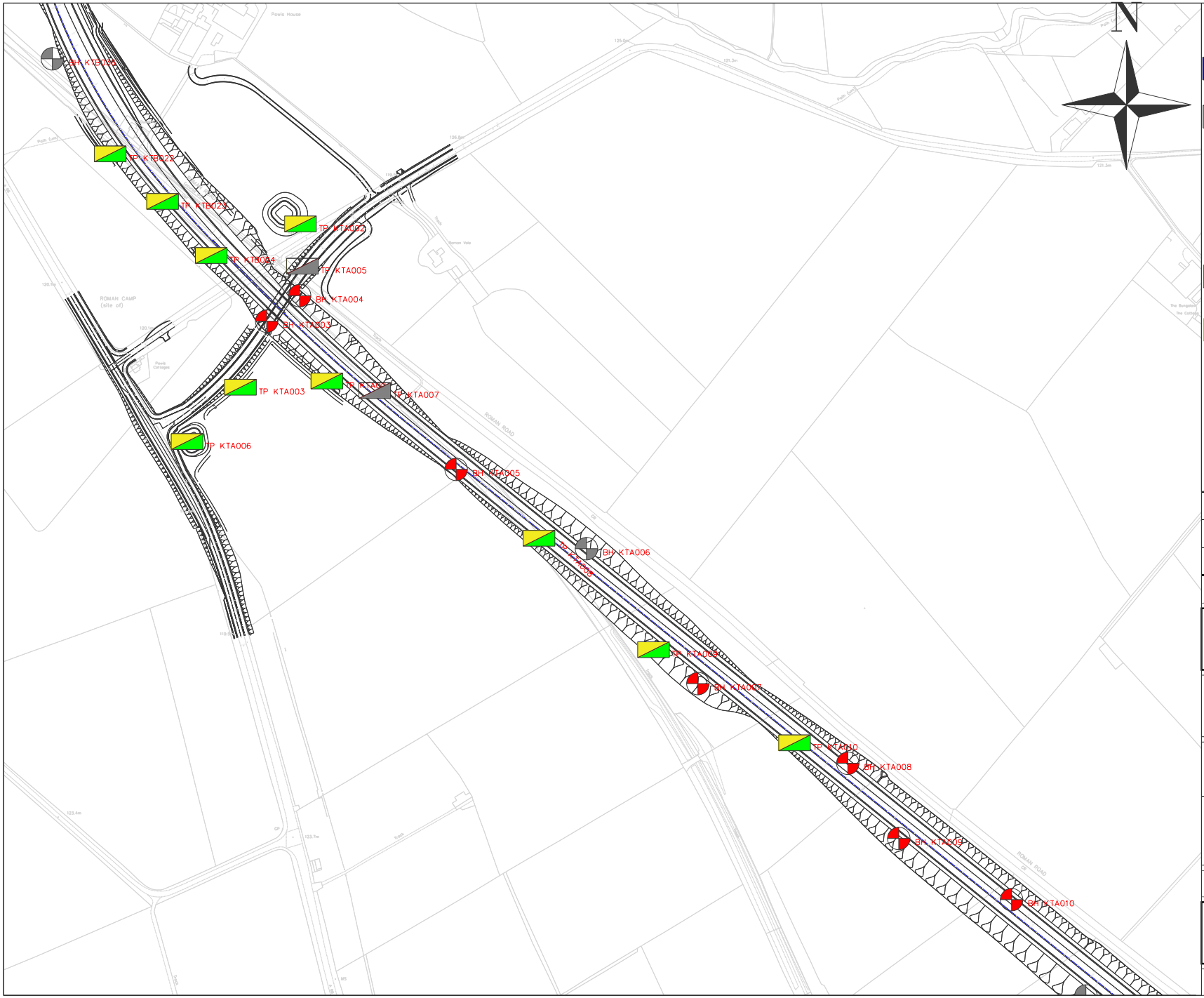

N

HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	—

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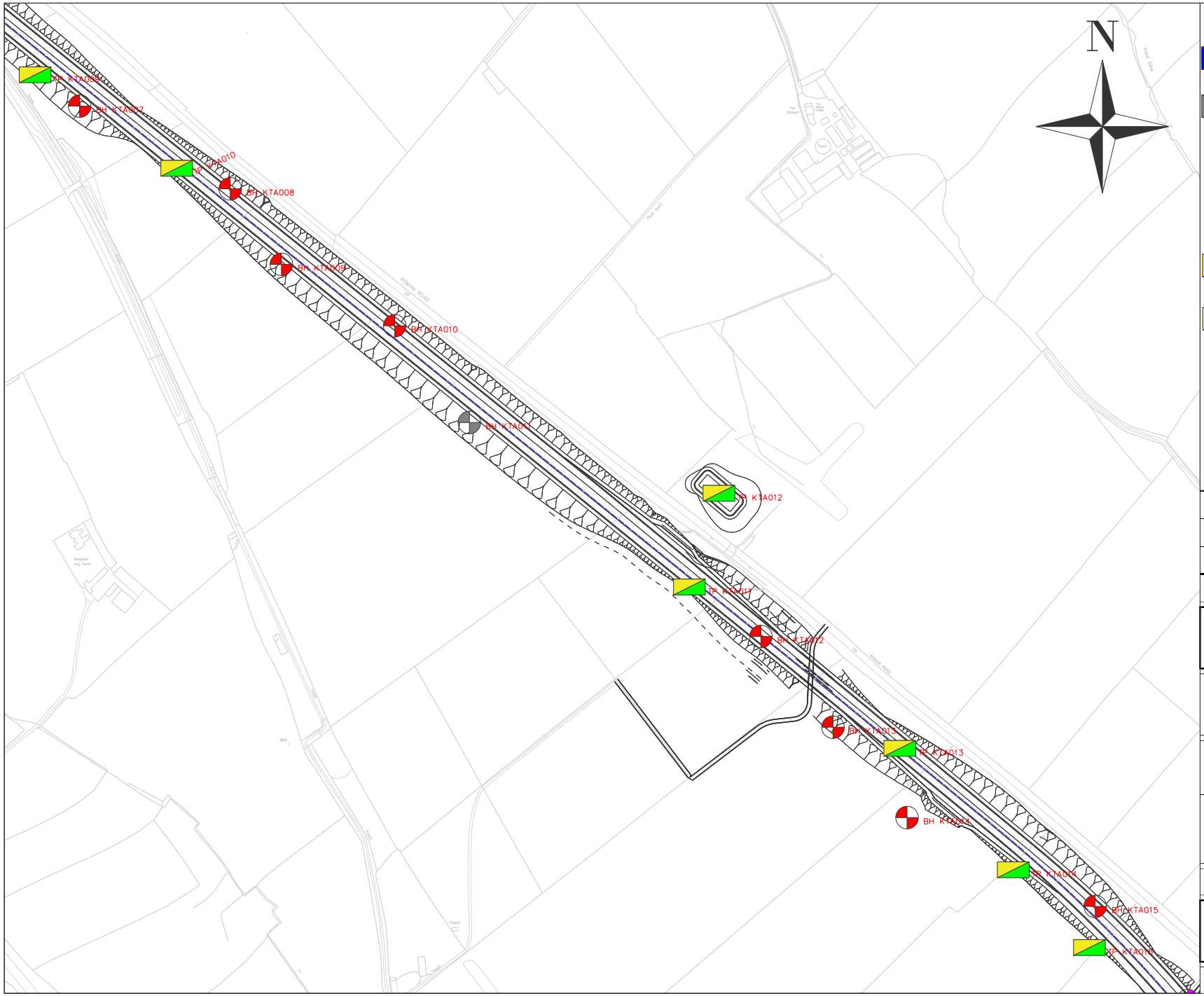
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Leachate Sheet 3 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000114
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	—

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Project Name
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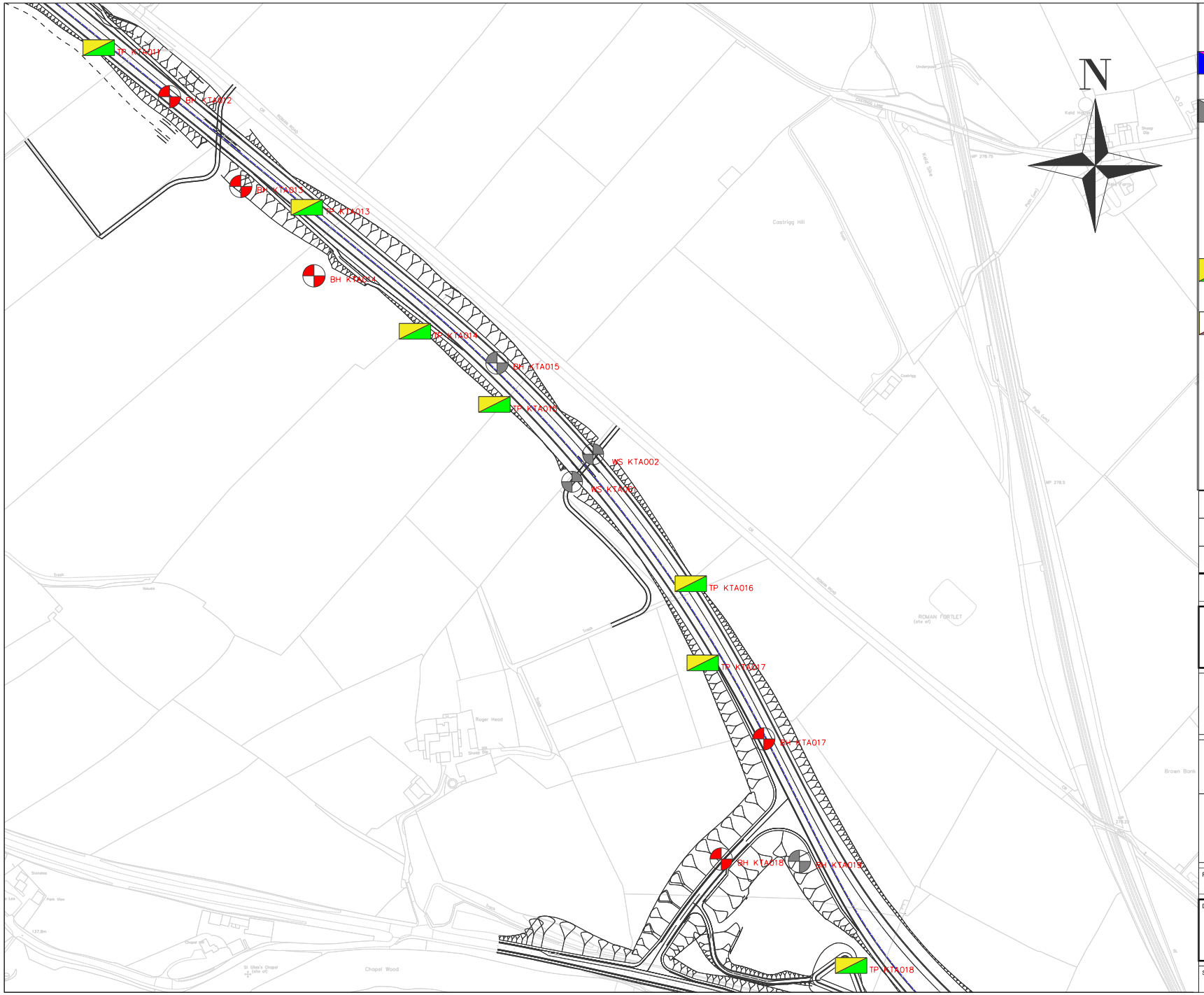
Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Leachate Sheet 4 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000115
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
–	–	–	–	–	–
–	–	–	–	–	–
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	–

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Leachate Sheet 5 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
–	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	Location	Type	Role	Number
HE565627	AMY	HGT	S0405	DR	CE	000116

Suitability	Suitability Description	Revision
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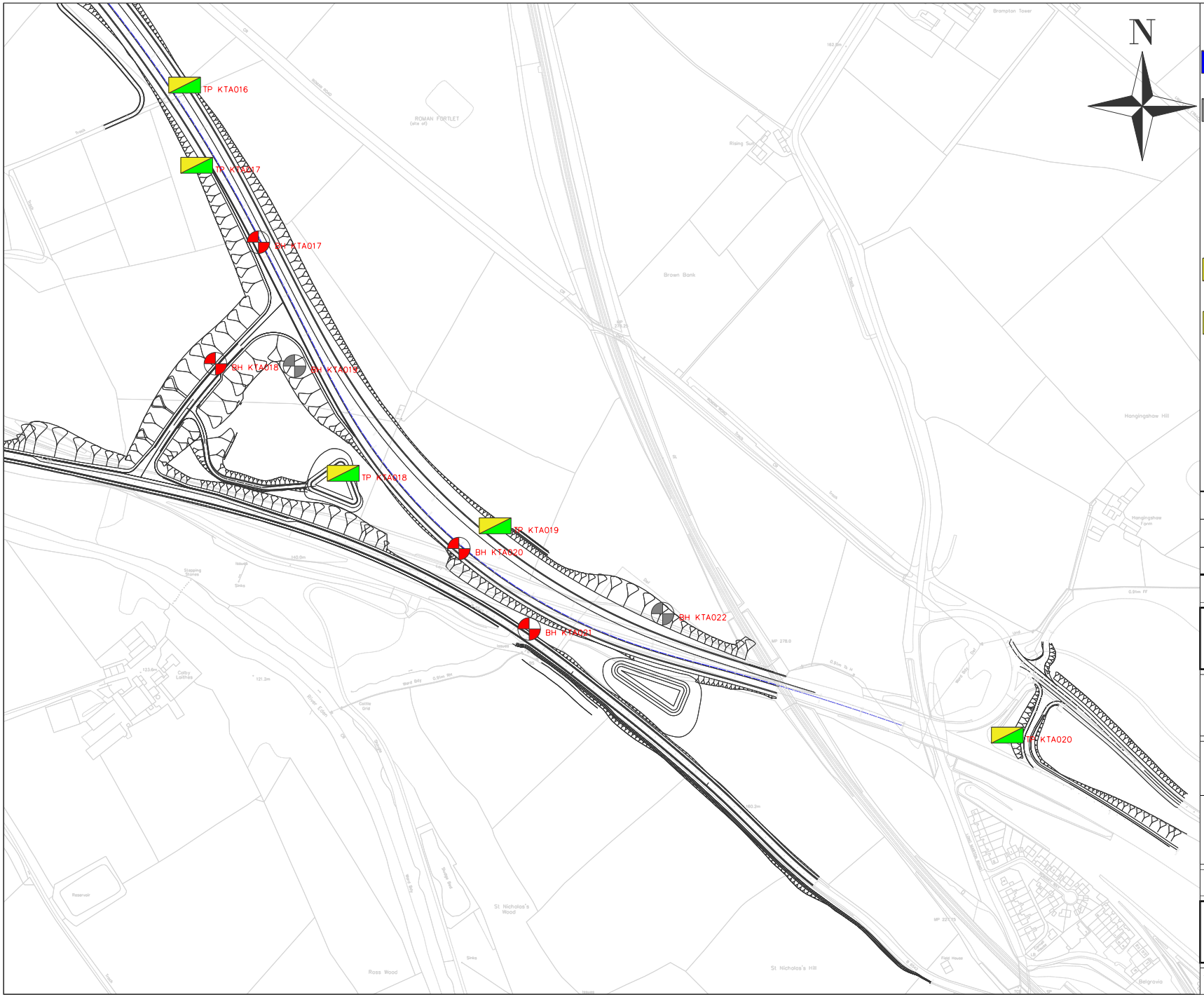

HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

–	–					
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–	–					
	–	–	–	–	–	–
	–	–	–	–	–	–
P01		MHAR	MHAR	JMOR	GMCG	–
		21/12/21	21/12/21	21/12/21	21/12/21	–

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

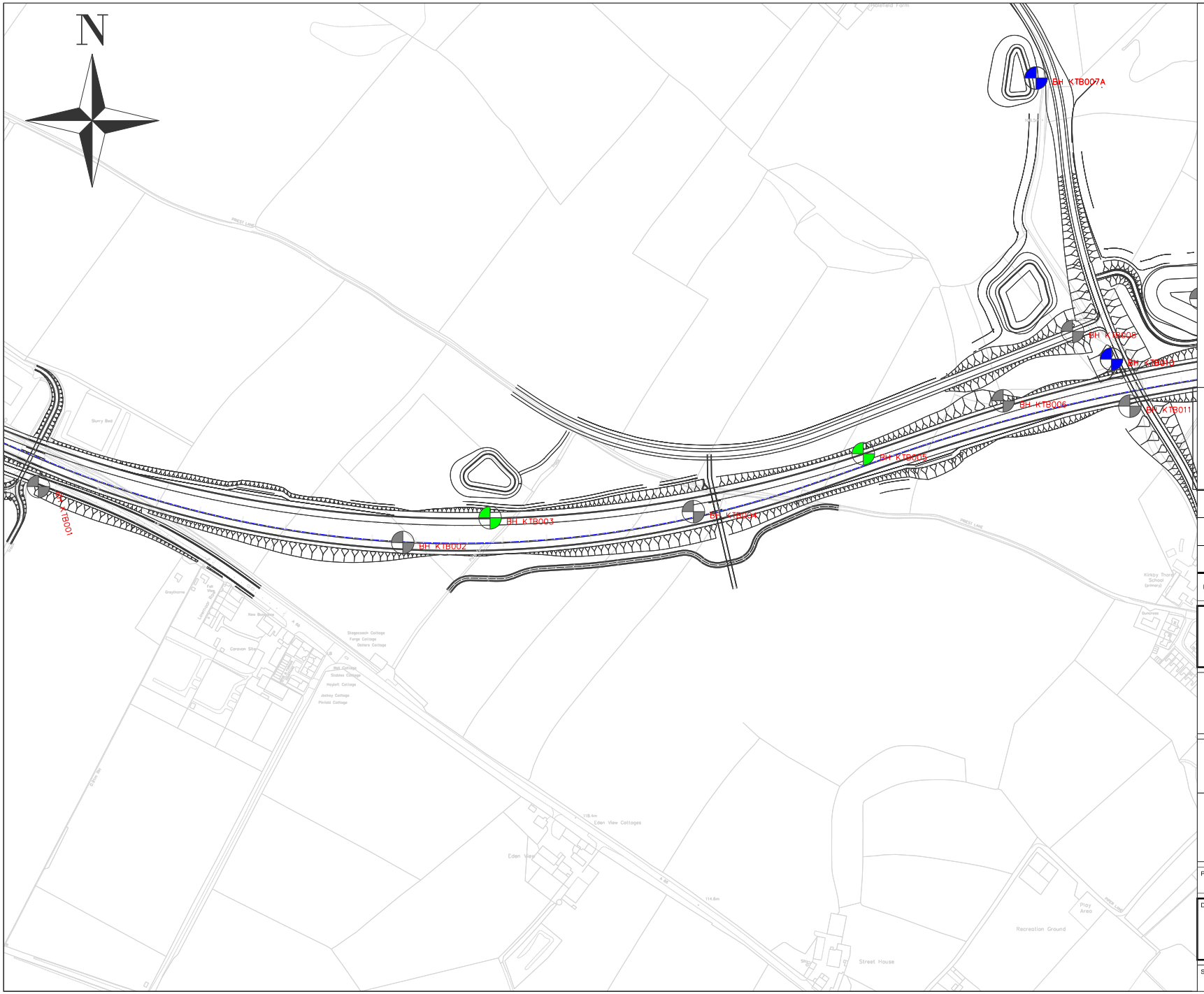
Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Leachate Sheet 6 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
–	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
Location		Type	Role	Number
S0405		-DR-CE-		000117

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	—

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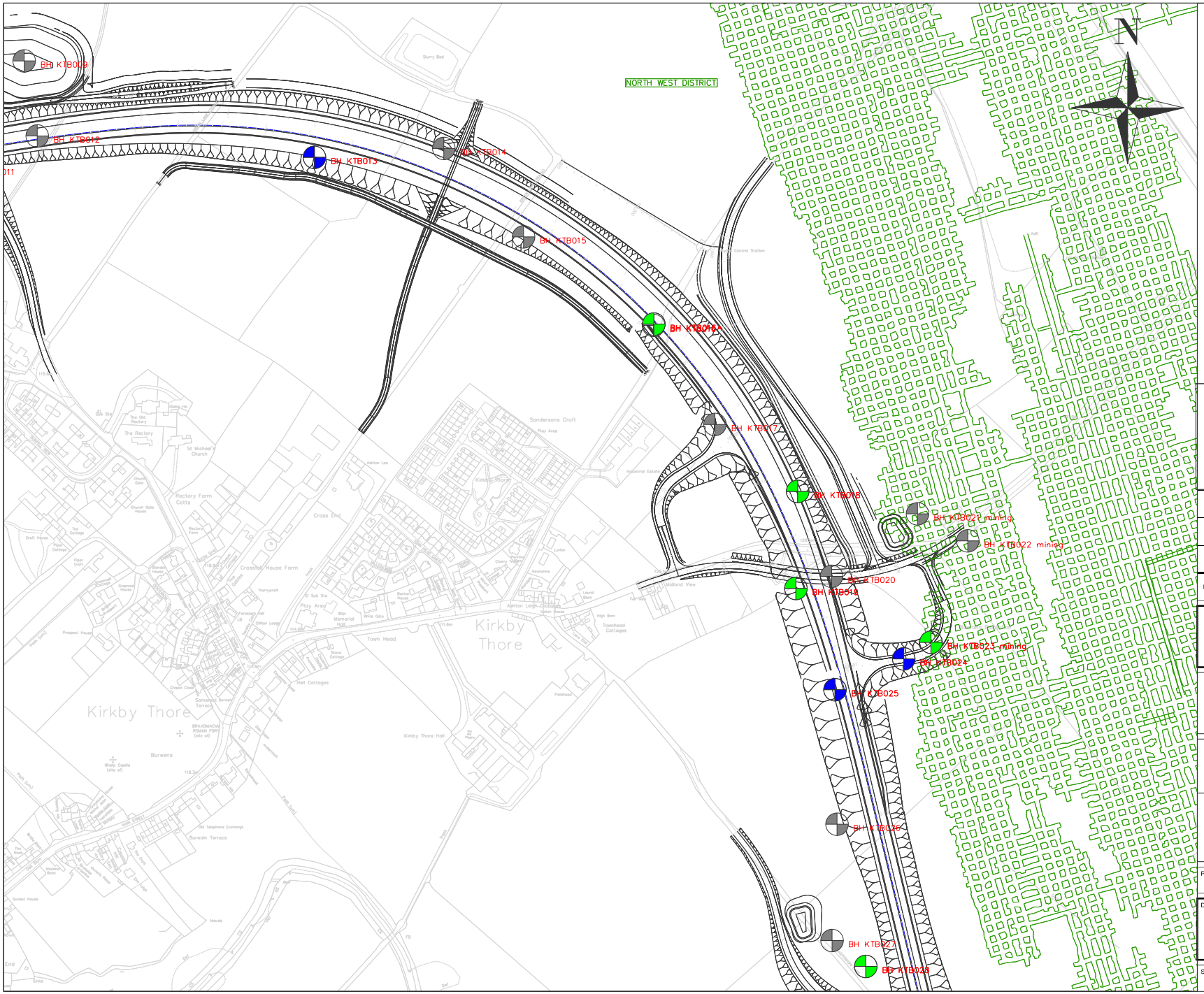
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTB)
Geo-Environmental Drawings
Groundwater Sheet 1 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 - DR - CE - 000118
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	—

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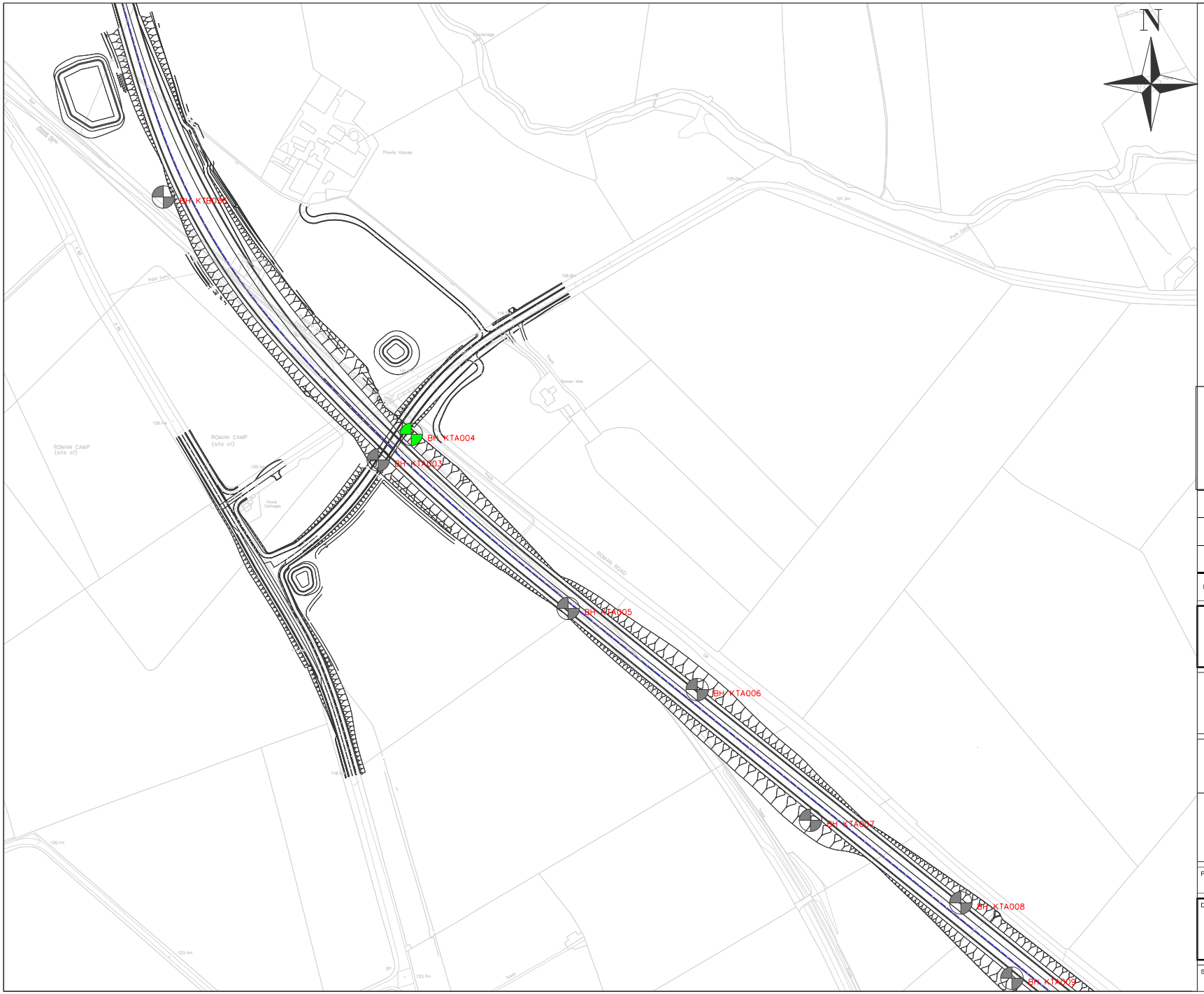
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTB)
Geo-Environmental Drawings
Groundwater Sheet 2 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000119
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
—	—	—	—	—	—
—	—	—	—	—	—
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	—

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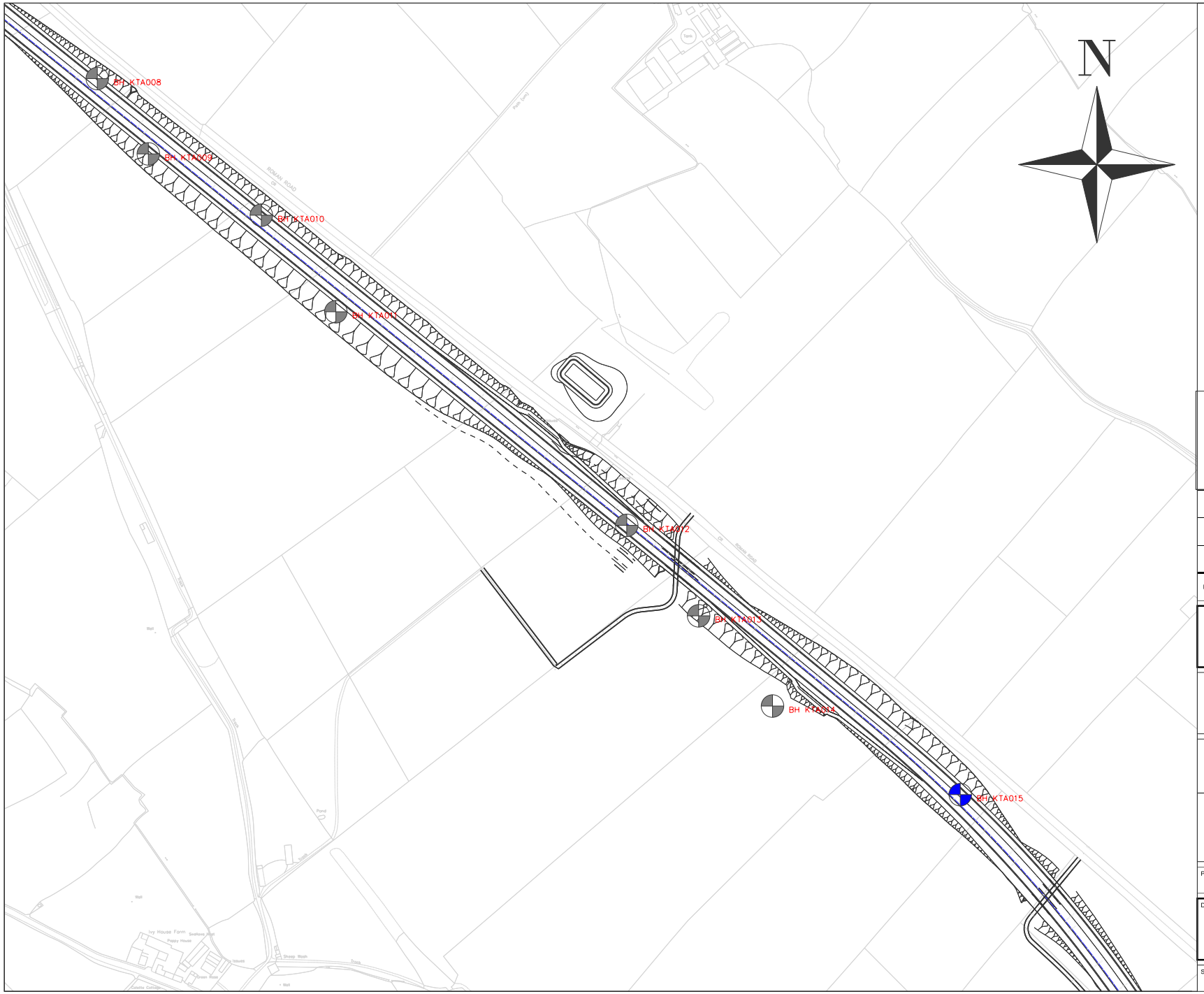
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Groundwater Sheet 3 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000120
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
—	—	—	—	—	—
—	—	—	—	—	—
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	—

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Project Name
A66 Northern Trans-Pennine

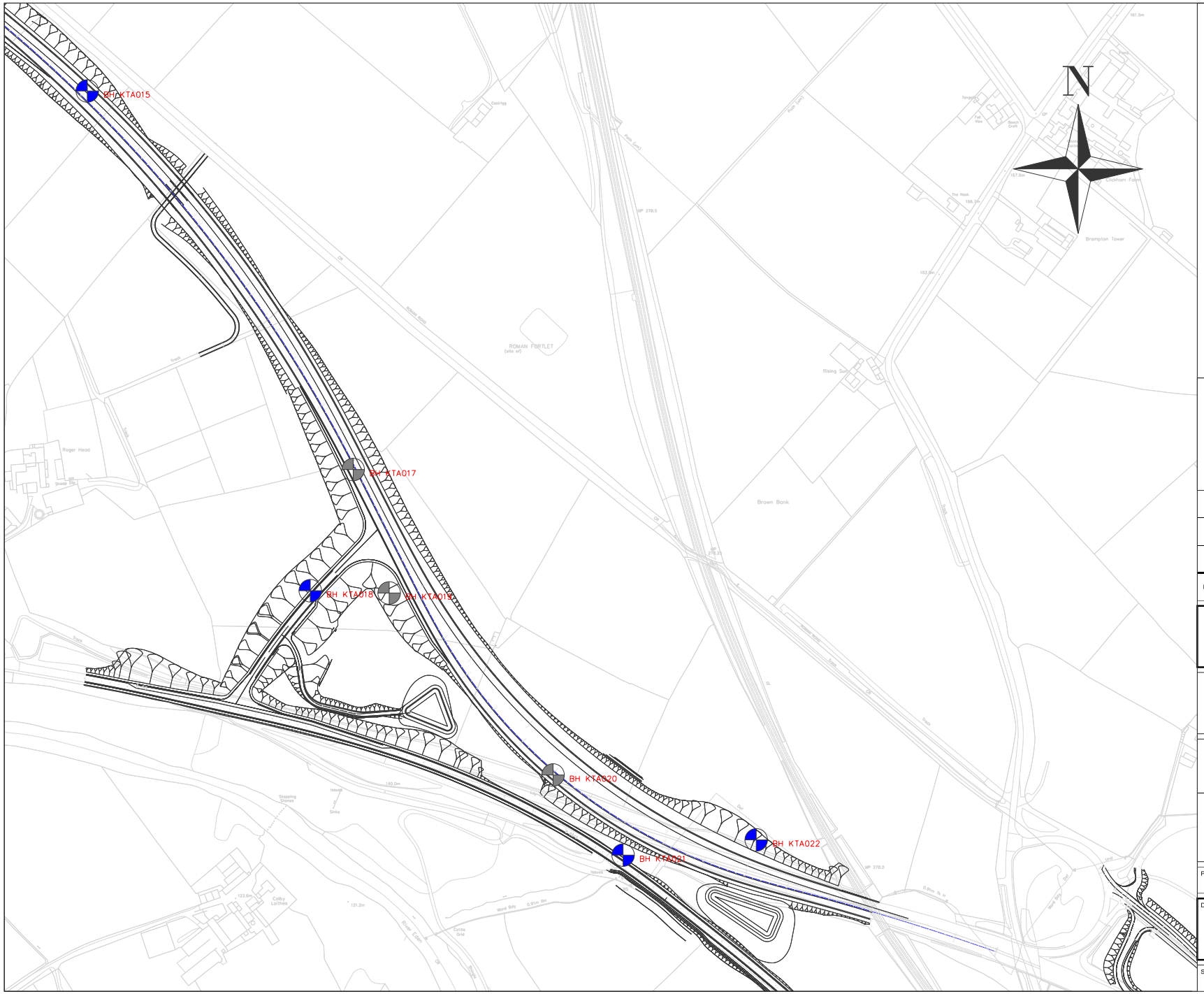
Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Groundwater Sheet 4 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
—	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627	- AMY	- HGT	-	
S0405	-DR	-CE	- 000121	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	MHAR 21/12/21	MHAR 21/12/21	JMOR 21/12/21	GMCG 21/12/21	—

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Project Name
A66 Northern Trans-Pennine

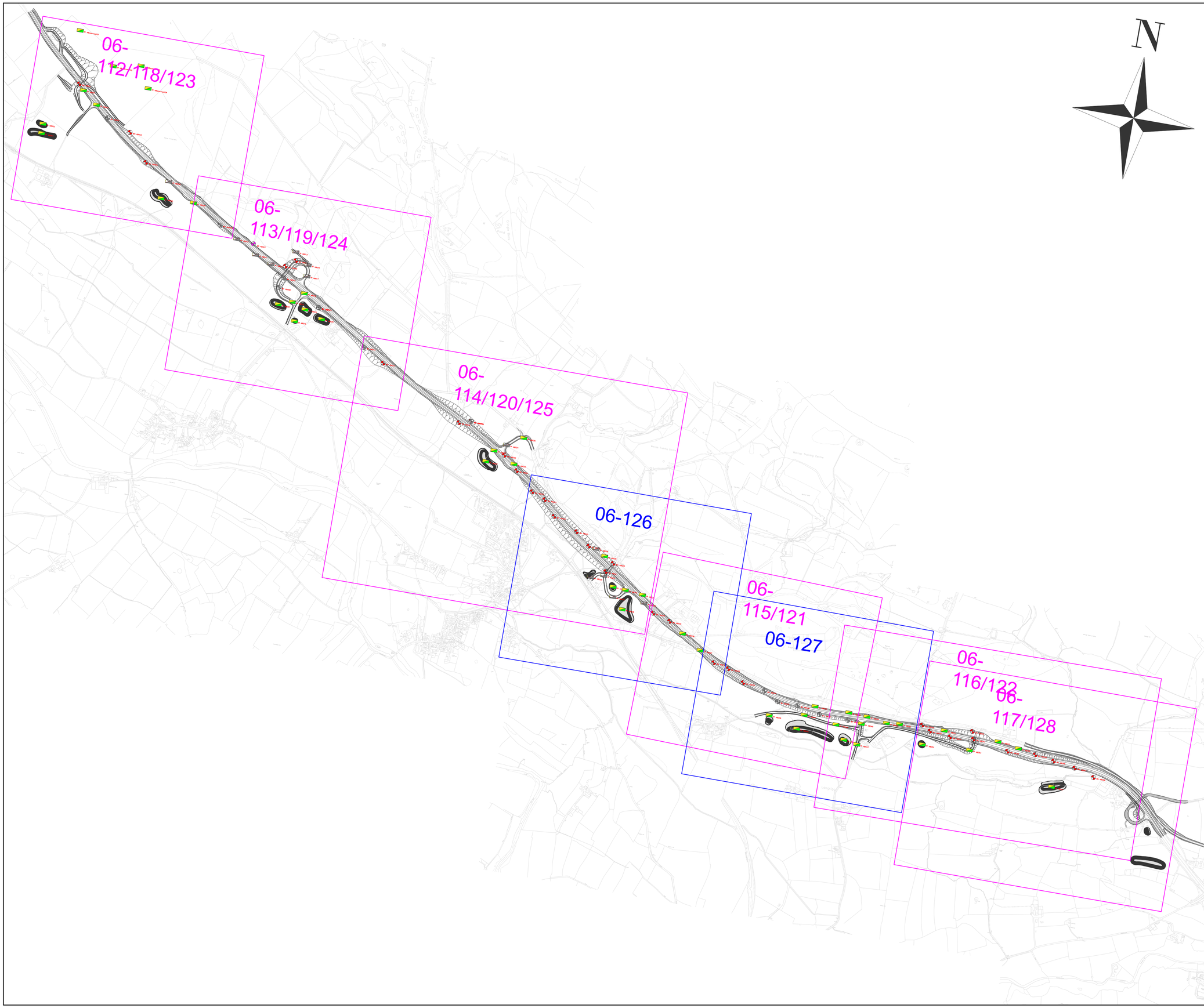
Drawing Title
Package A
Temple Sowerby to Appleby (KTA)
Geo-Environmental Drawings
Groundwater Sheet 5 of 10

Project Ref. No.	Stage	Scale: As Shown @ A1
—	PCF3	Dimensions: M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S0405 -DR-CE- 000122
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

A.4 Appleby to Brough (Warcop): Geo-environmental (Leachate, Groundwater and Soils)



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	17/01/22	17/01/22	17/01/22	17/01/22	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

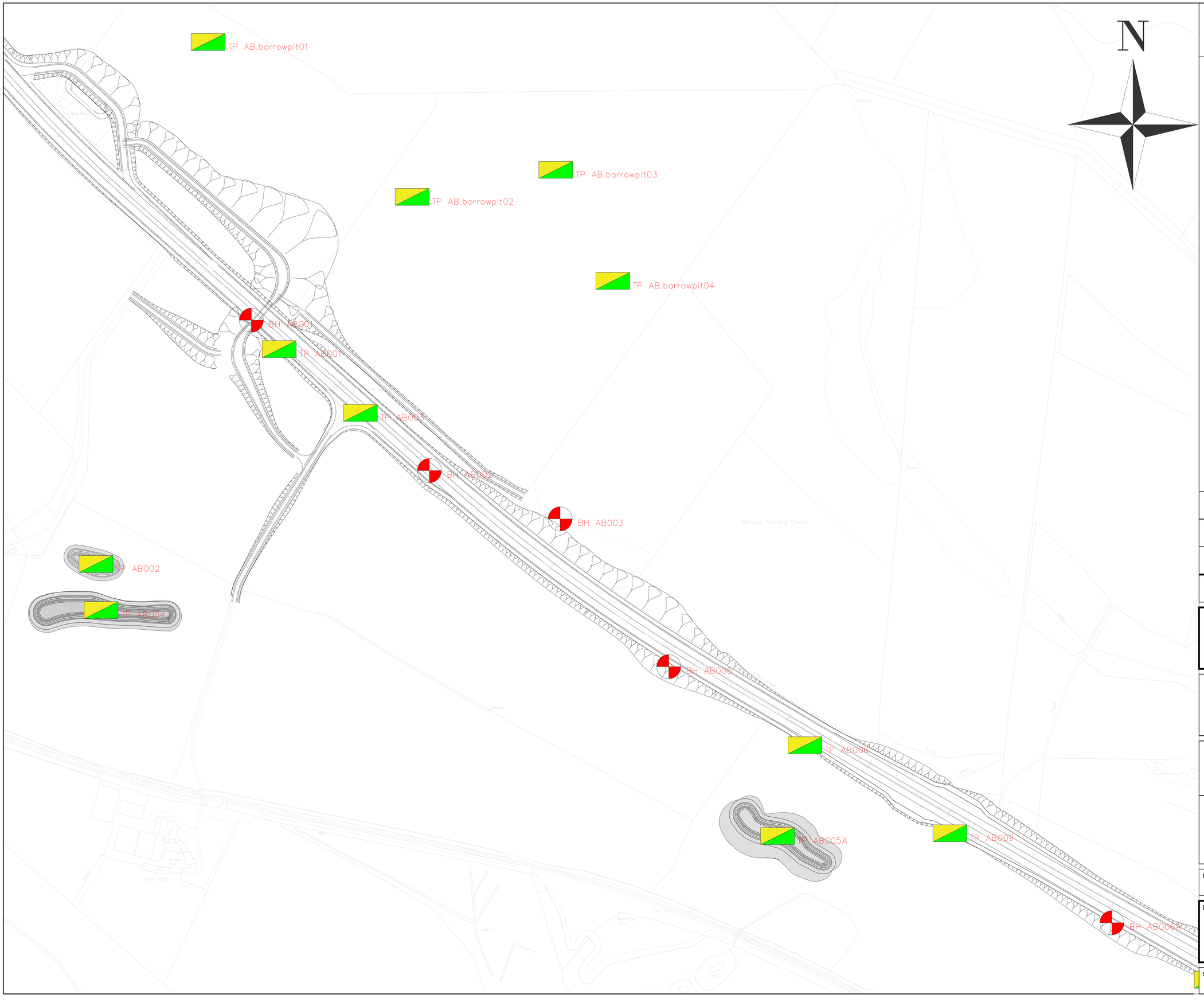
Drawing Title
Package A
Warcop
Key to Geo-environmental drawings

Project Ref. No.	Stage	Scale : 1:10000 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06	-DR-	CE-	000130	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Geo-Environmental Hazards

- *None noted*

HDTP	Hand Pit
HDTP	Unused Hand Pit
WS	Window Sample
WS	Unused Window Sample
TP	Trial Pits
TP	Unused Trial Pits
BH	Boreholes
BH	Unused Boreholes

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	---	---	---	---	---
P01					
	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---
P02					
	MHAR	MHAR	JMOR	GMCG	---
	17/01/22	17/01/22	17/01/22	17/01/22	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

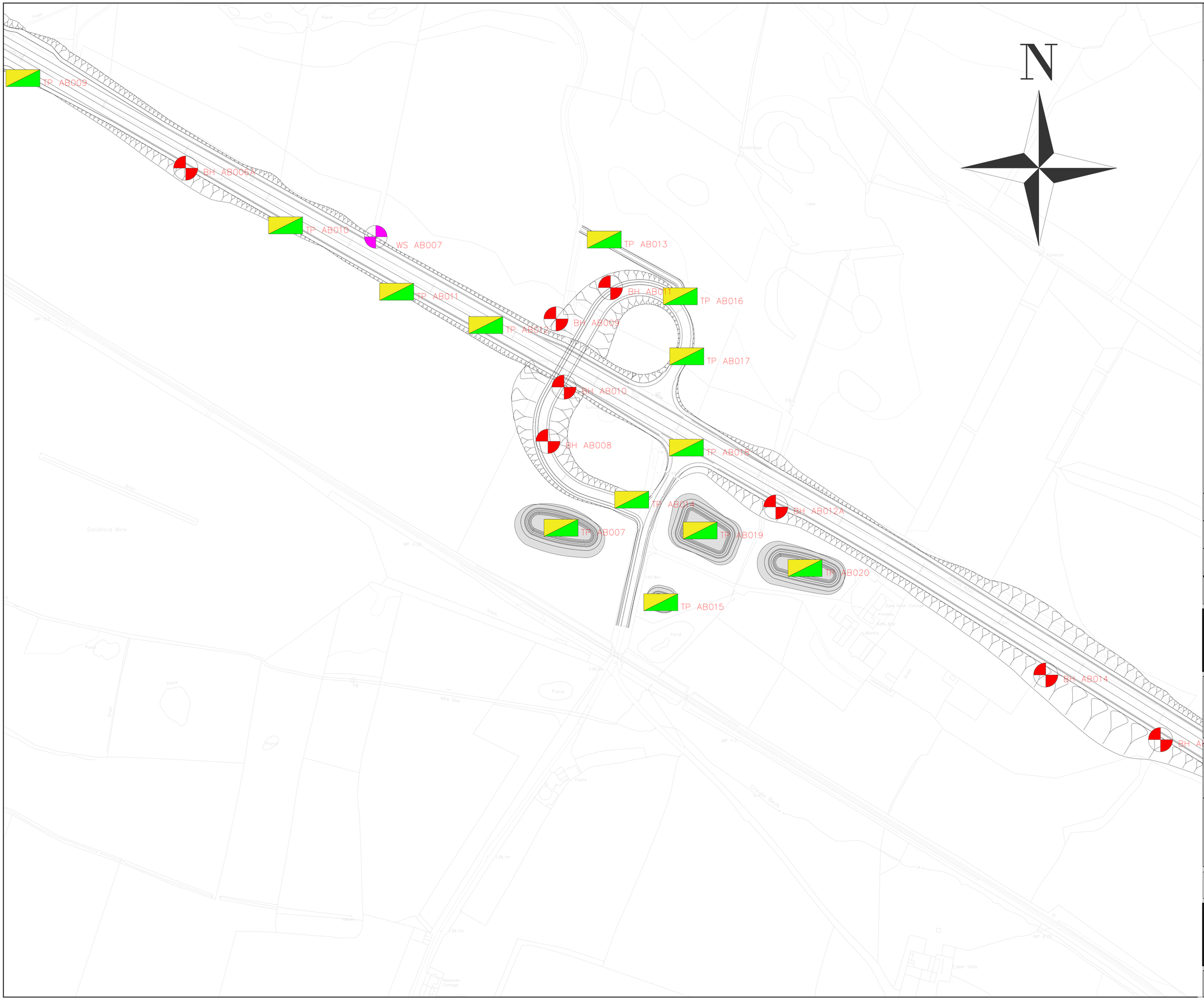
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Soils Sheet 6 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE-	000123
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



Geo-Environmental Hazards

- *None noted*

HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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	---	---	---	---	---
P01	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---
P02	MHAR	MHAR	JMOR	GMCG	---
	17/01/22	17/01/22	17/01/22	17/01/22	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

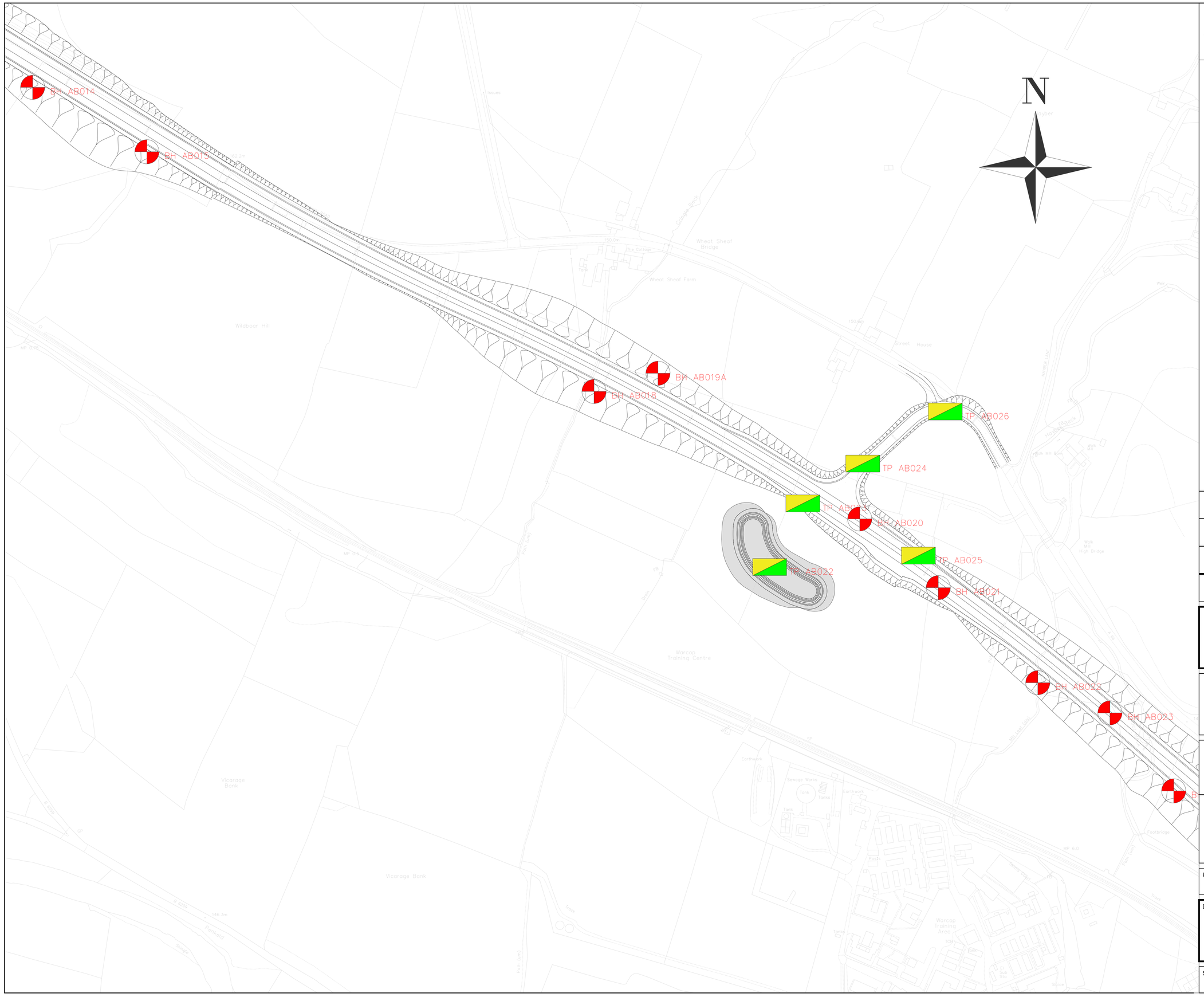
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Soils Sheet 7 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	
HE565627 -	AMY -	HGT -	
S06	-DR-	CE-	000124
Location	Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



Geo-Environmental Hazards

- *None noted*

HDTP	Hand Pit
HDTP	Unused Hand Pit
WS	Window Sample
WS	Unused Window Sample
TP	Trial Pits
TP	Unused Trial Pits
BH	Boreholes
BH	Unused Boreholes

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P01	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---
P02	MHAR	MHAR	JMOR	GMCG	---
	17/01/22	17/01/22	17/01/22	17/01/22	---
Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

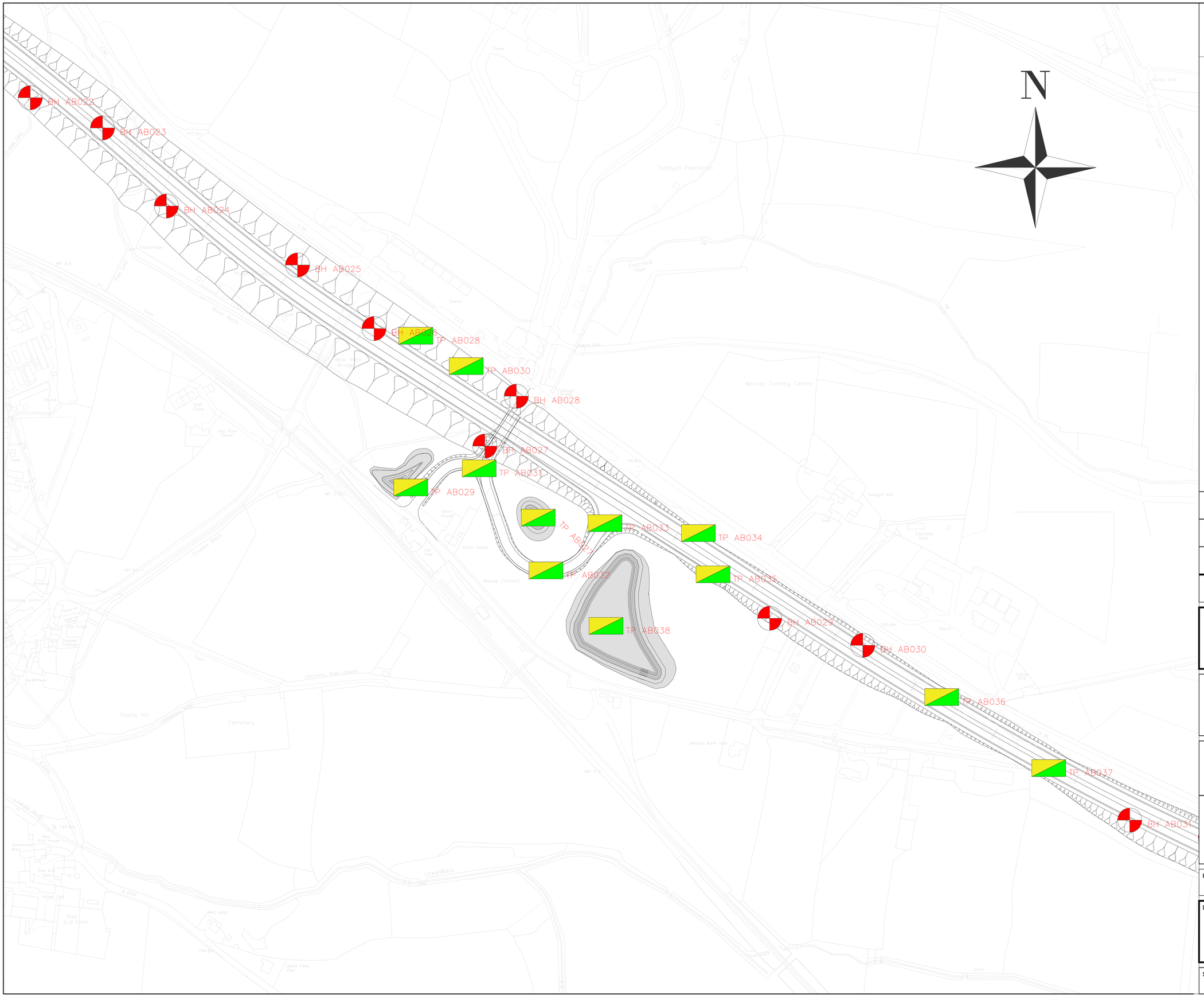
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Soils Sheet 8 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY	- HGT	-	
S06		-DR-	CE-	000125
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



Geo-Environmental Hazards

- *None noted*

HDTP	Hand Pit
HDTP	Unused Hand Pit
WS	Window Sample
WS	Unused Window Sample
TP	Trial Pits
TP	Unused Trial Pits
BH	Boreholes
BH	Unused Boreholes

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	---	---	---	---	---
P01					
	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---
P02					
	MHAR	MHAR	JMOR	GMCG	---
	17/01/22	17/01/22	17/01/22	17/01/22	---
Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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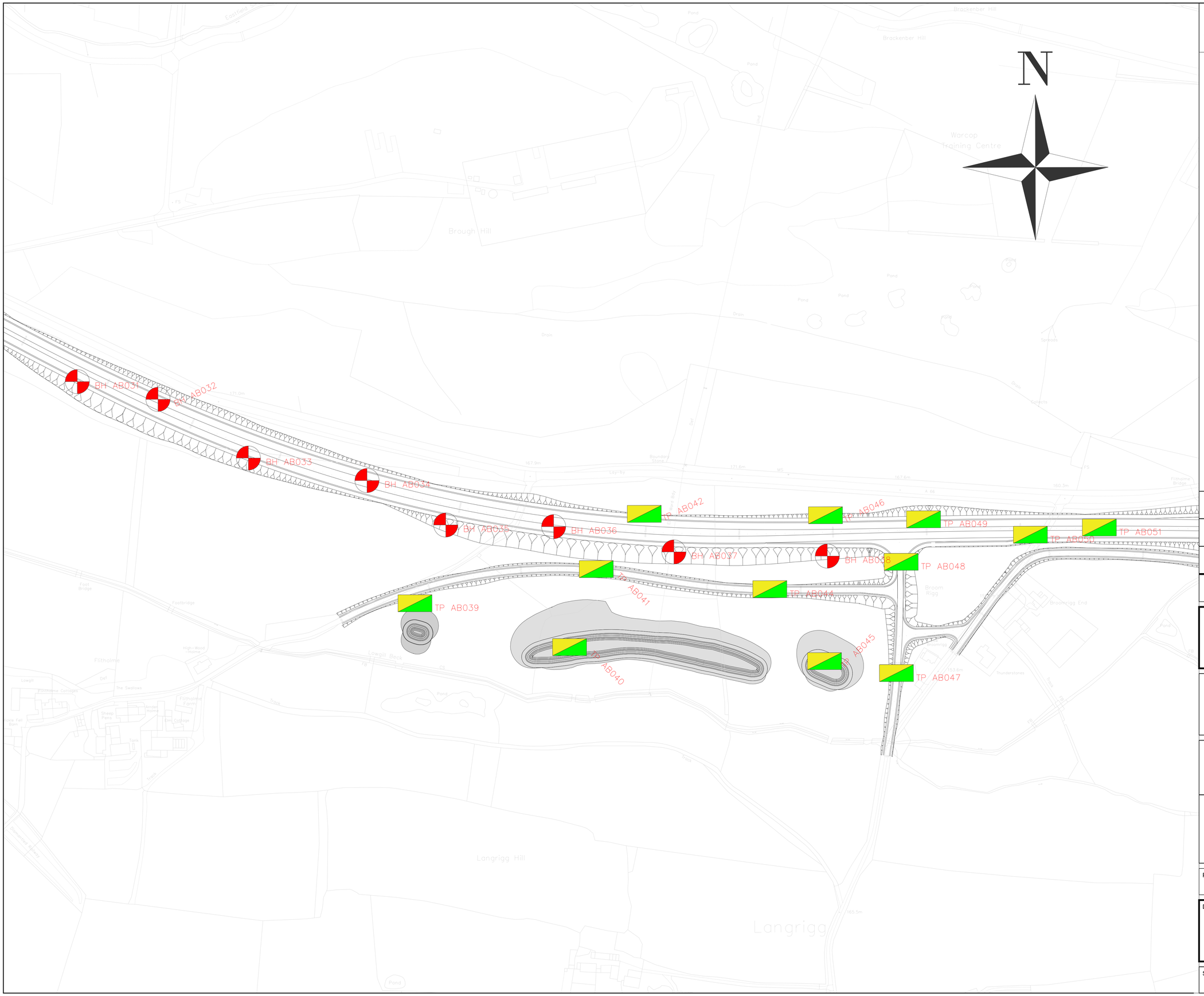
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Soils Sheet 9 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06	-DR-	CE-	000126	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



Geo-Environmental Hazards

- *None noted*

HDTP	Hand Pit
HDTP	Unused Hand Pit
WS	Window Sample
WS	Unused Window Sample
TP	Trial Pits
TP	Unused Trial Pits
BH	Boreholes
BH	Unused Boreholes

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	---	---	---	---	---
P01					
	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---
P02					
	MHAR	MHAR	JMOR	GMCG	---
	17/01/22	17/01/22	17/01/22	17/01/22	---
Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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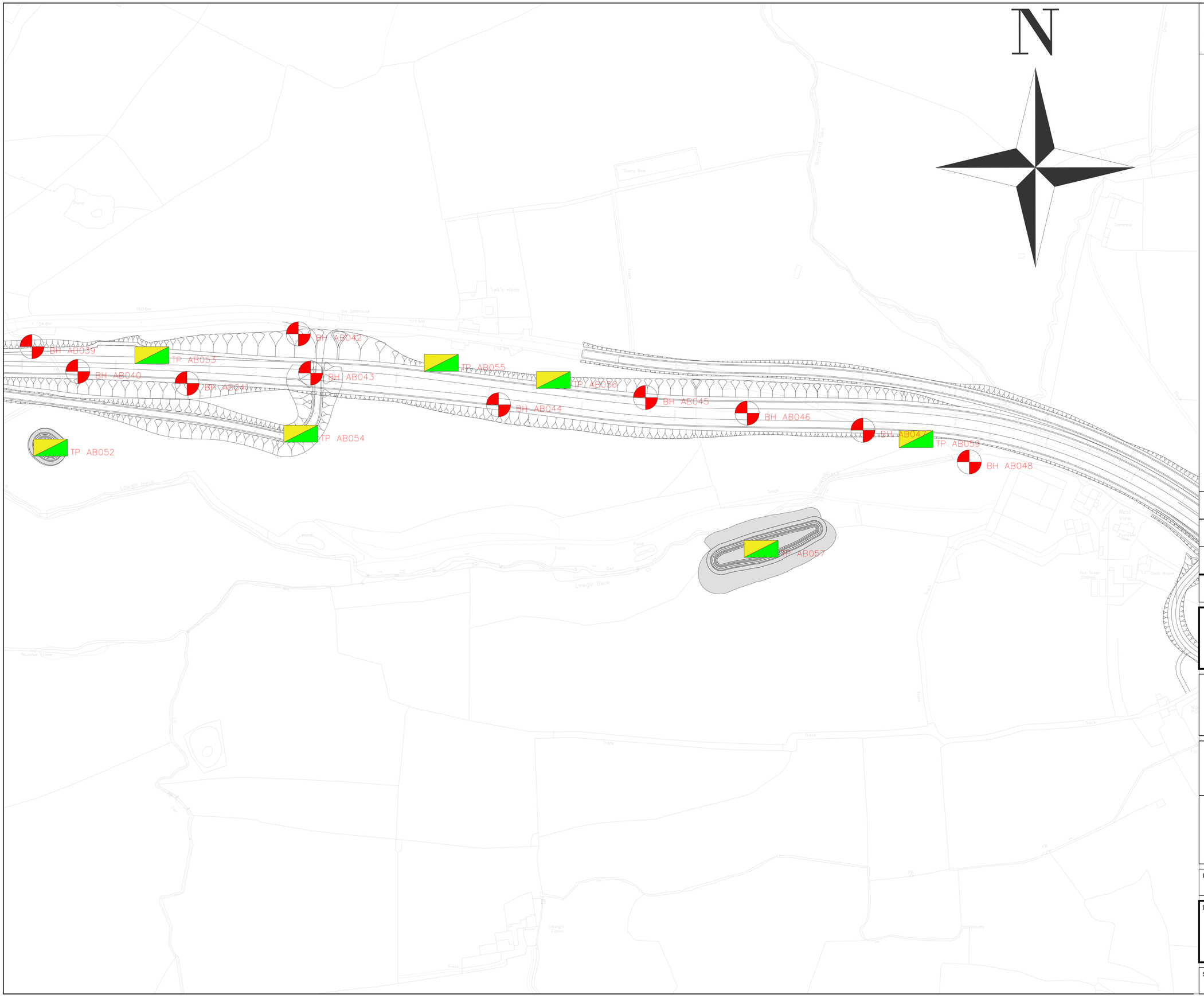
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Soils Sheet 10 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	
HE565627 -	AMY -	HGT -	
S06	-DR-	CE-	000127
Location	Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



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	21/12/21	21/12/21	21/12/21	21/12/21	---	
P02						
	MHAR	MHAR	JMOR	GMCG	---	
	17/01/22	17/01/22	17/01/22	17/01/22	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

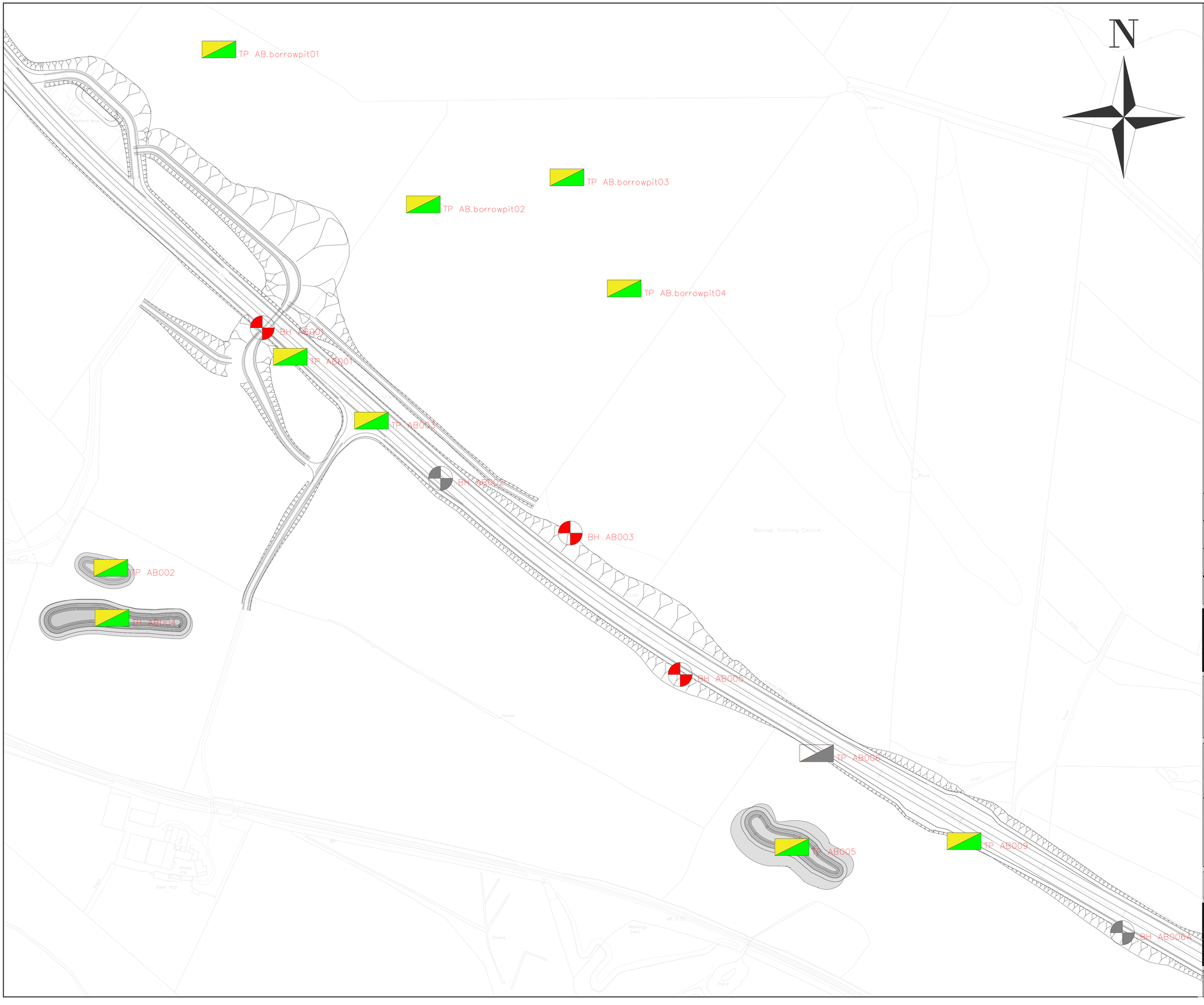
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Soils Sheet 11 of 11

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		- DR -	CE -	000128
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P02



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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	---	---	---	---	---	---
P01						
	MHAR	MHAR	JMOR	GMCG	---	
	21/12/21	21/12/21	21/12/21	21/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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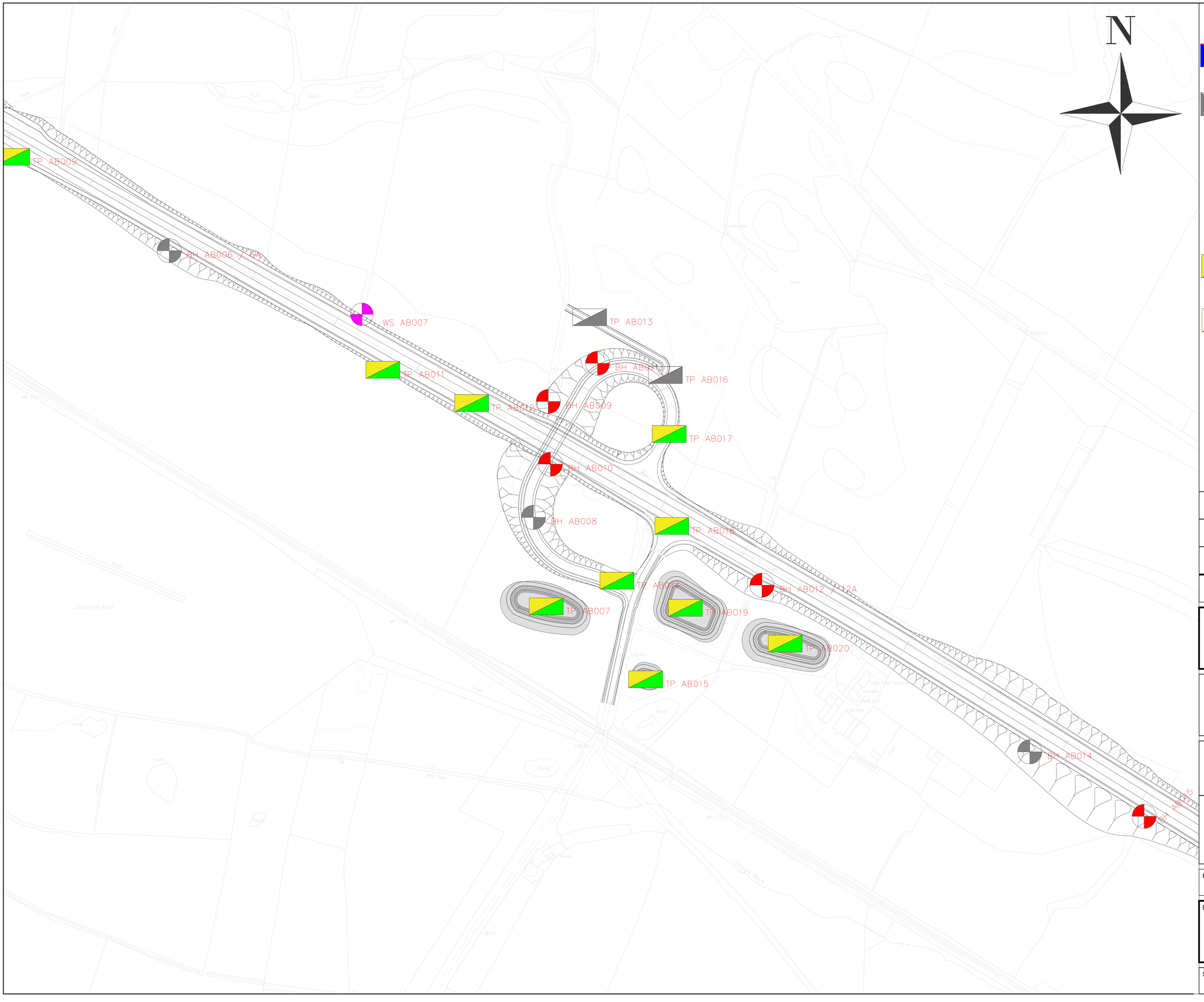
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Leachate Sheet 7 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	
HE565627 -	AMY -	HGT -	
S06	-DR-	CE-	000112
Location	Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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	---	---	---	---	---	---
P01		MHAR	MHAR	JMOR	GMCG	---
		21/12/21	21/12/21	21/12/21	21/12/21	---
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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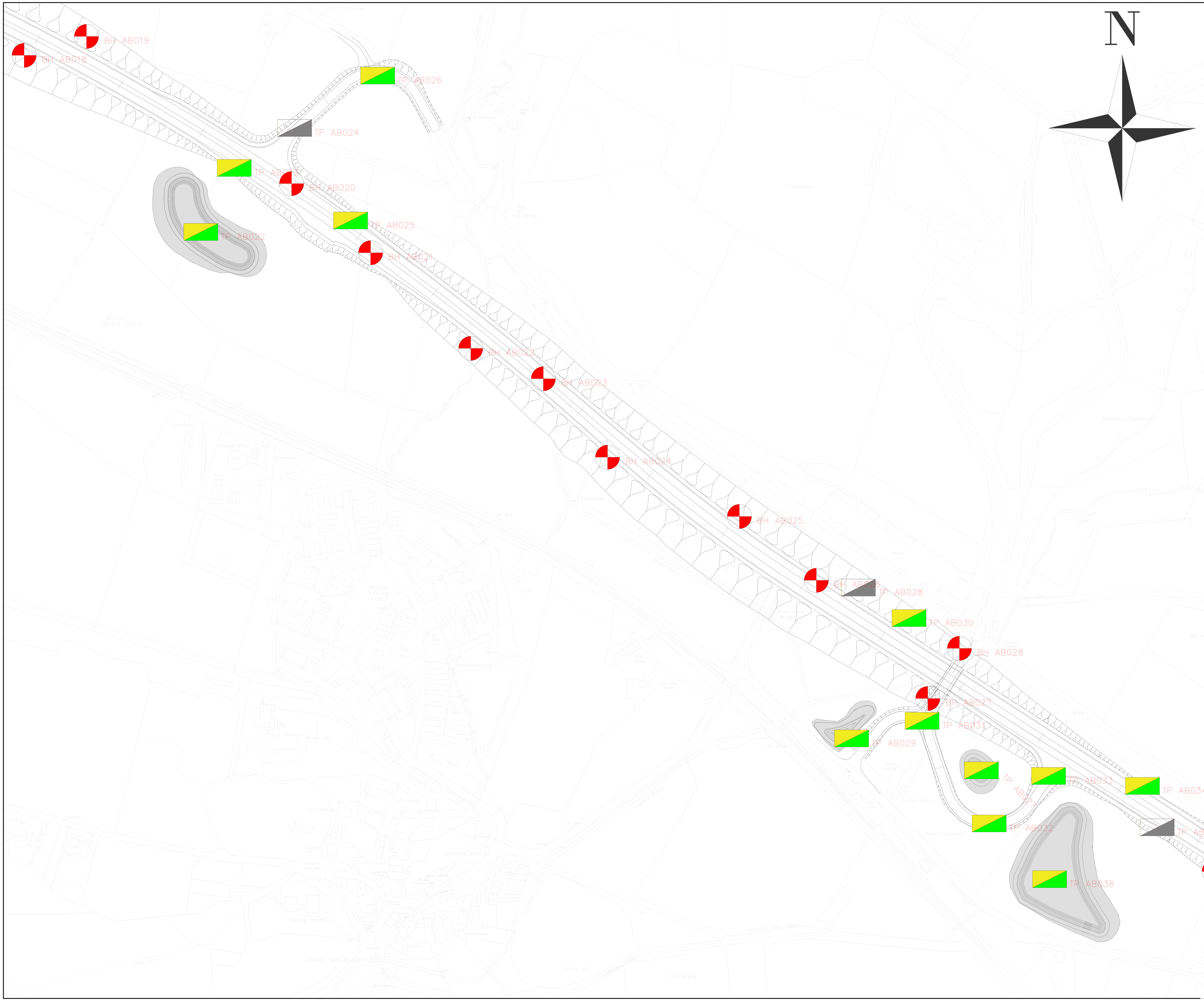
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Leachate Sheet 8 of 12

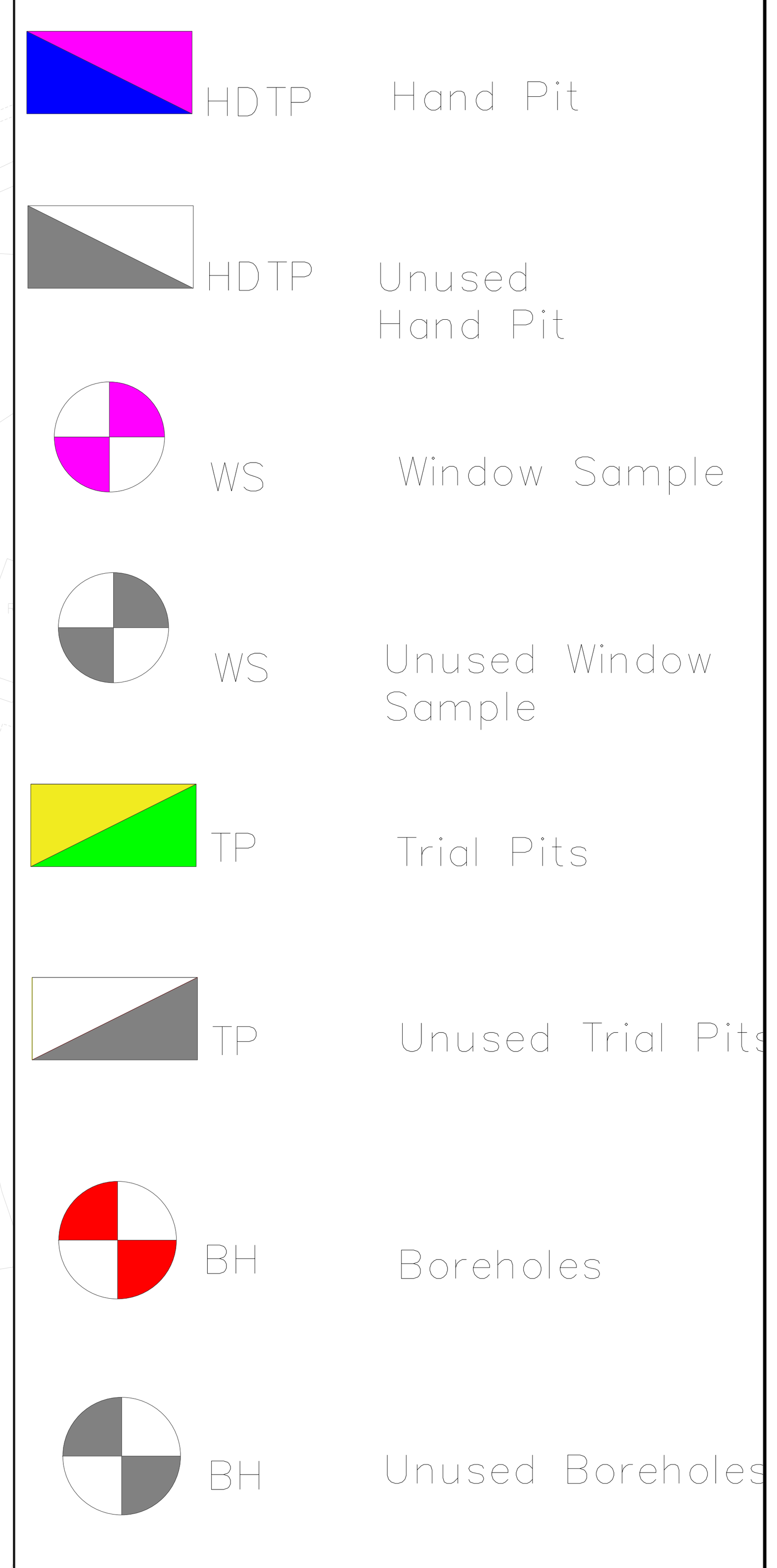
Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE -	000113
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01





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P01					
	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---
Revision	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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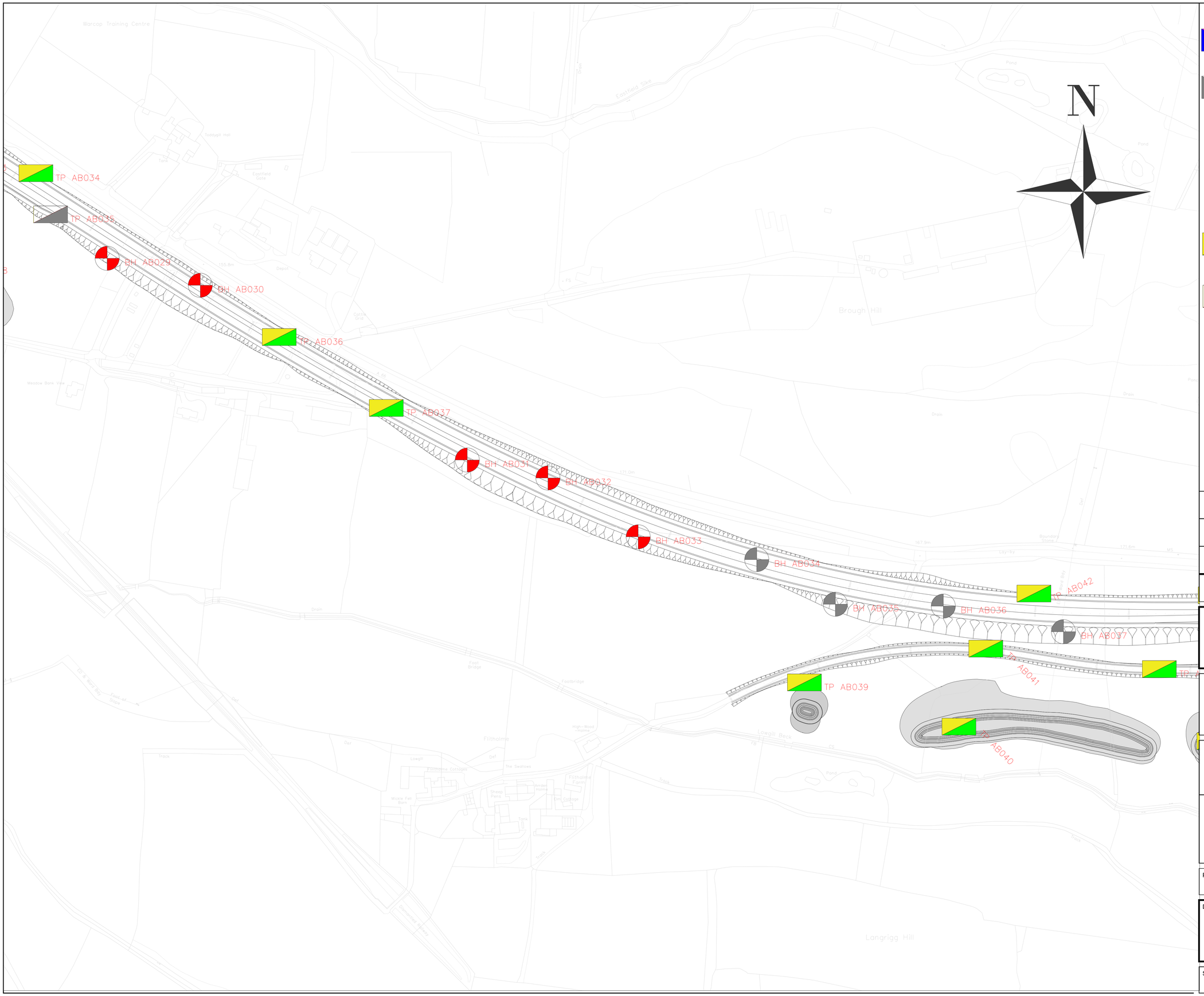
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Leachate Sheet 9 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	Location	Type	Role	Number
HE565627	AMY	HGT	S06	DR	CE	000114

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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	---	---	---	---	---
P01					
	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Leachate Sheet 10 of 12

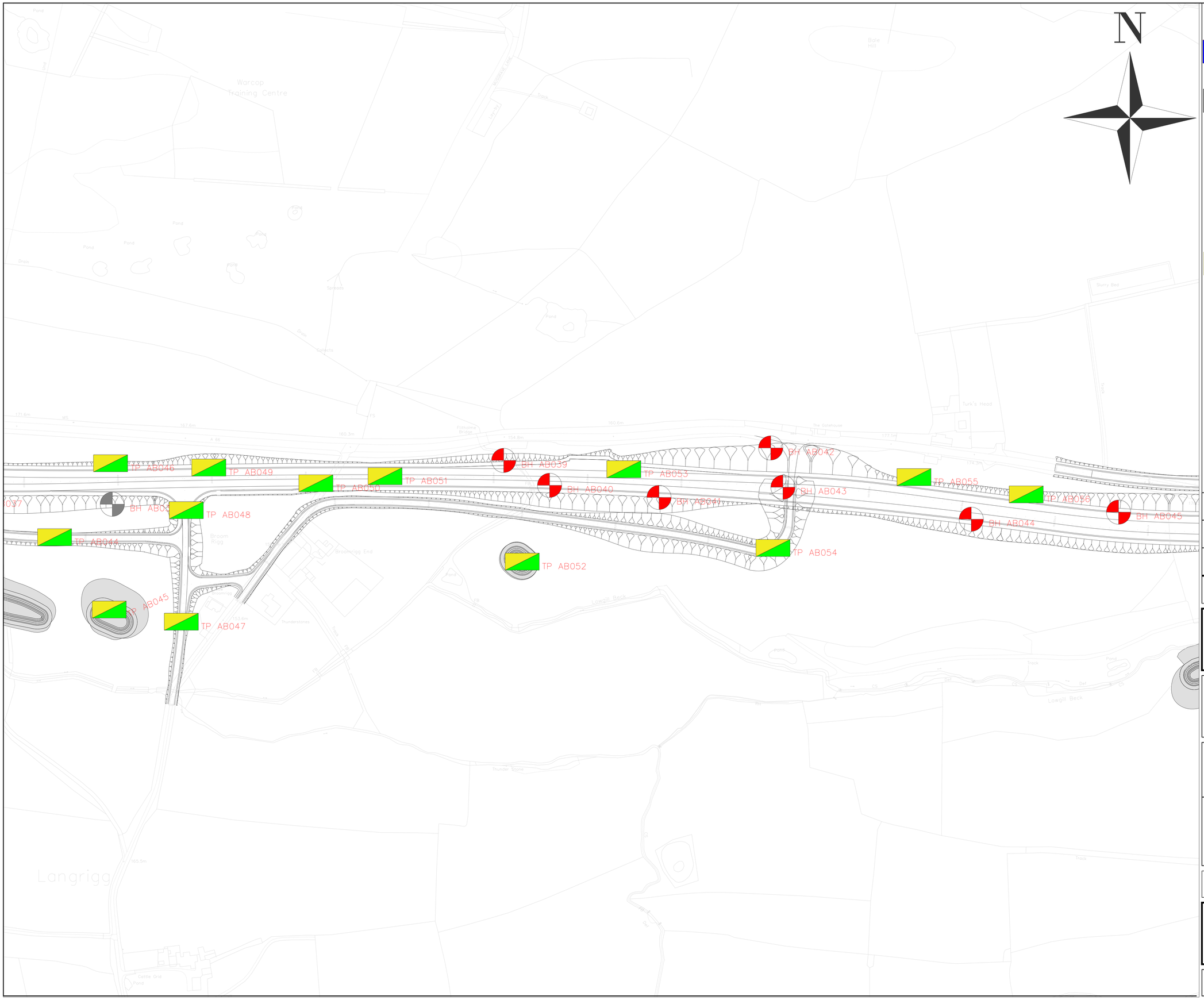
Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	
HE565627 -	AMY	- HGT	-

Location	Type	Role	Number
S06	-DR	-CE	- 000115

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	21/12/21	21/12/21	21/12/21	21/12/21	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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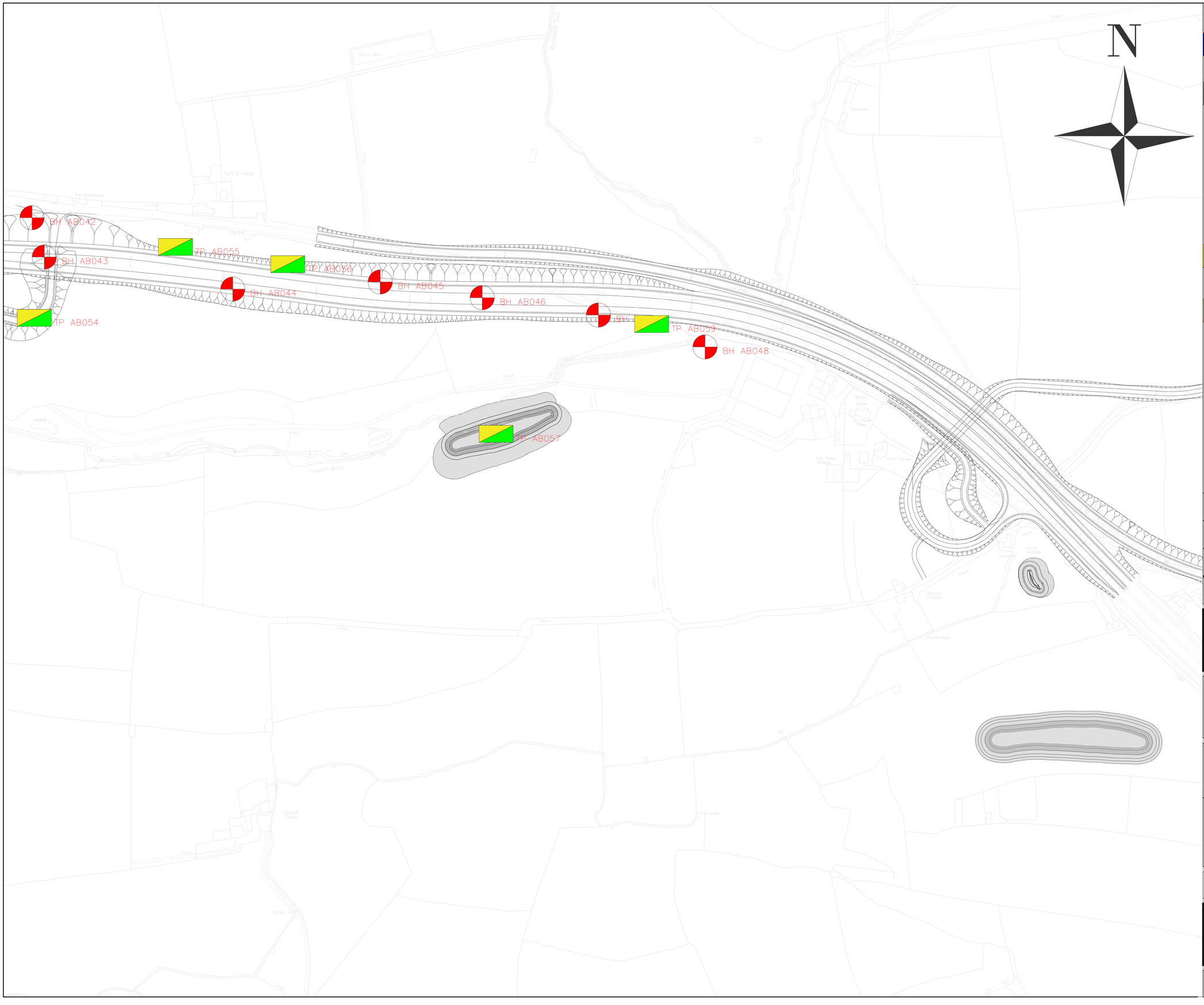
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Leachate Sheet 11 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		- DR -	CE -	000116
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	21/12/21	21/12/21	21/12/21	21/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Leachate Sheet 12 of 12

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627 -	AMY -	HGT -			
S06		-DR-	CE-	000117	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	21/12/21	21/12/21	21/12/21	21/12/21	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Groundwater Sheet 6 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE-	000118
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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P01					
	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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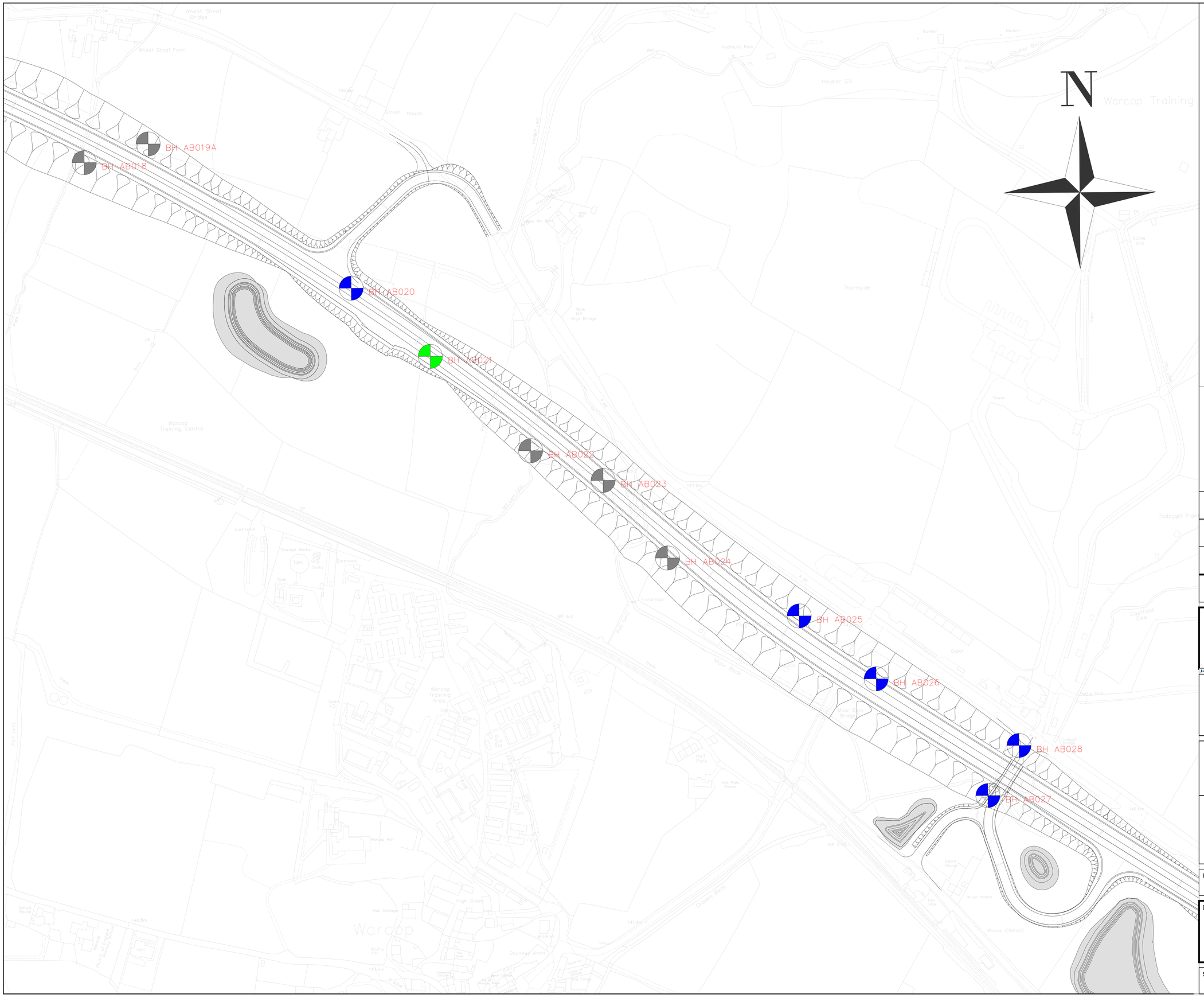
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Groundwater Sheet 7 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE-	000119
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	21/12/21	21/12/21	21/12/21	21/12/21	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
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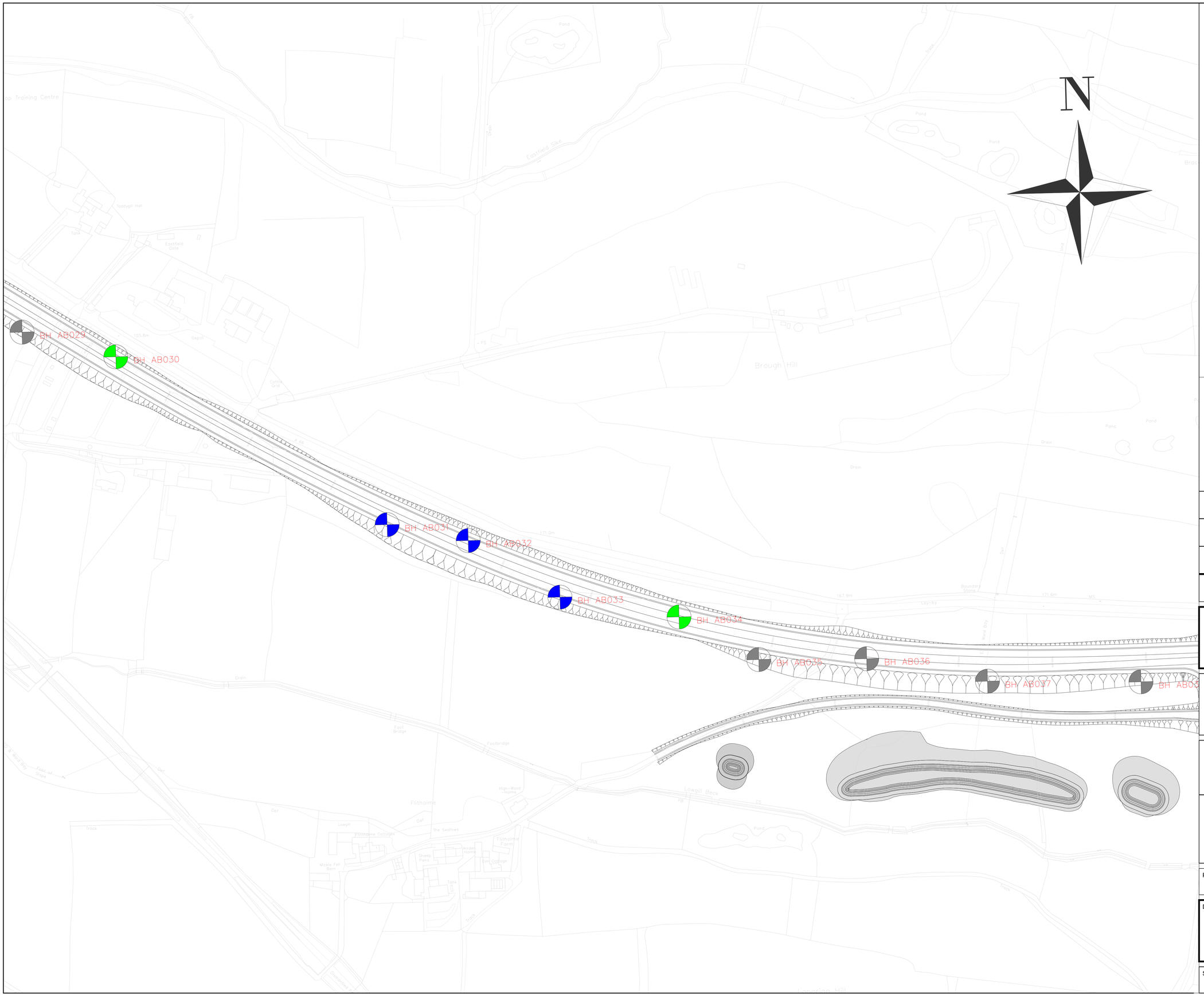
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Groundwater Sheet 8 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06	-DR-	CE-	000120	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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	---	---	---	---	---
P01					
	MHAR	MHAR	JMOR	GMCG	---
	21/12/21	21/12/21	21/12/21	21/12/21	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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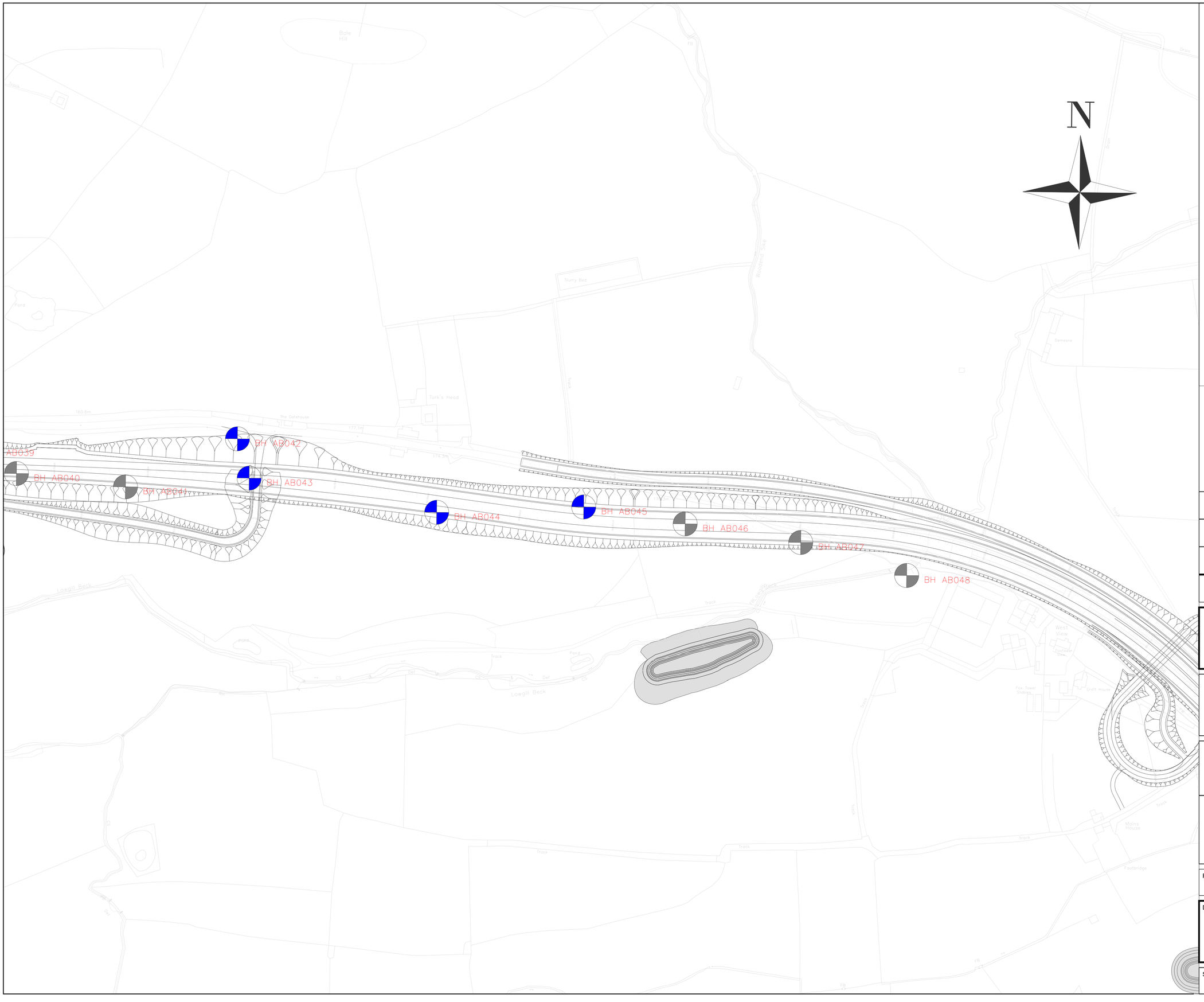
Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Groundwater Sheet 9 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S06		-DR-	CE-	000121
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	21/12/21	21/12/21	21/12/21	21/12/21	---	
Revision	Revision details					
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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package A
Warcop
Geo-Environmental GIR Drawings
Groundwater Sheet 10 of 10

Project Ref. No.	Stage	Scale : As Shown @ A1
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S1	Fit for Co-ordination	P01

B Geophysical Trial Survey Report

Structural Soils Ltd

A66 Kirkby Thore – Trial Survey

Geophysical Report

Project no. 55735

MARCH 2021

RSK GENERAL NOTES

Project No.: 55735–R01(00)

Title: Geophysical Report, A66 Kirkby Thore Trial

Client: Structural Soils Ltd

Date: 12th March 2021

Office: RSK, Spring Lodge, 172 Chester Road, Helsby, Cheshire, WA6 0AR

[redacted]

Status: Final

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Date:	16/03/2021	Date:	16/03/2021

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FIGURES

APPENDIX A

EXECUTIVE SUMMARY

On the instructions of David Loach of Structural Soils Ltd, RSK Environment Ltd has carried out a geophysical investigation to determine the presence, depth, nature and subsurface extent of mine workings associated with the mineral extraction of gypsum at Kirby Thore.

Project Findings

Site Setting and Current Usage	The site is situated in a field to the east of Kirkby Thore, Cumbria, approximately 350m east beyond the junction of Main Street and Sleastonhow Lane. Information from British Gypsum indicates some areas of the site sit on top of untreated mine workings up to 25-35m depth. The site is currently used for agricultural purposes although there were no crops on the field at the time of site work.
Survey Objectives	To determine the presence, depth, nature and subsurface extent of abandoned mine workings associated with the mineral extraction of gypsum at Kirkby Thore.
Geophysical Techniques Employed	The geophysical techniques employed include: • Electrical Resistivity Tomography (ERT) Survey • Seismic Refraction Survey • Seismic Reflection Survey
Geophysical Investigation Findings	• Multiple anomalies were observed in the ERT dataset. These have been interpreted as the Penrith Sandstone and Eden Shale formation dipping towards the North East. A vertical feature which interpreted as fault bounding the high resistance anomaly in the centre of the site. A significant highly resistive anomaly was observed in the Eden Shale formation which has been interpreted as the air void of the mine workings. • Using the P-Wave seismic refraction data, lower velocities are observed to the North Eastern side of the site. The velocities are generally lower in this area and may indicate the change in lithologic to the Eden Shales. • The Seismic Reflection display multiple vertical anomalies which may be indicative of faults in the lithological layers. A slight dipping reflection is interpreted as the boundary between the Penrith Sandstone and Eden Shale.
Recommendations	It is recommended that further intrusive investigation be conducted to confirm the nature of the anomalies highlighted and it is recommended at the ERT technique be deployed if further surveys are commissioned.

1 INTRODUCTION

1.1 Introductions

On the instructions of David Loach of Structural Soils Ltd, RSK Environment Limited, carried out a trial geophysical site investigation to seek to determine the presence, depth, nature and subsurface extent of mine workings associated with the mineral extraction of gypsum at Kirkby Thore.

1.2 Details of the Project

The project was carried out to an agreed brief as set out in RSK proposal letter of 3rd February 2021, and included the following:

- Electrical Resistivity Tomography (ERT) Survey;
- Seismic Refraction Survey;
- Seismic Reflection Survey;
- An Interpretative report.

1.3 Limitations

Non intrusive geophysical techniques seek to locate boundaries across which there is a marked contrast in physical properties. Such a contrast may be detected remotely because it gives rise to a geophysical anomaly, which is indicative of variation in a physical property relative to some background value. Insufficient contrast (including high levels of cultural noise) can result in masking of the sought anomaly. Therefore, there may be other conditions prevailing at the site which have not been revealed by this investigation and which have therefore not been taken into account in this report.

The response of the ground to different physical forces can be highly variable. Interpretation of the responses contained in this report is based on experience in similar environments and site conditions.

The materials encountered and samples obtained during on-site intrusive investigations represent only a small proportion of the materials present on-site. It should be accepted, therefore, that the interpretation from remotely sensed geophysical data may be inconsistent with that arising from direct methods of investigation.

2 THE SITE

2.1 Location and Regional Setting

The site is situated in a field to the east of Kirkby Thore, Cumbria, approximately 350m east beyond the junction of Main Street and Sleastonhow Lane.

The site is currently used for agricultural purposes although there were no crops on the field at the time of site work.

The site is located at National Grid reference NY 646 261. An extract of the 1:25,000 Ordnance Survey map showing the location of the site is given in **Figure 1**. **Figure 2** illustrates the site layout.

2.2 Geology

The published 1:50,000 scale geological map of the area indicates the area is underlain by Glacial Till which sits on top of the Penrith Sandstone Formation to the South-West and the Eden Shale group deposits to the North-East. An extract of the geological map displayed in **Plate 1** indicates that there is a fault that cuts across the survey area joining the Penrith Sandstone and Eden Shales. A cross section (from British Gypsum) is shown in **Plate 2**.

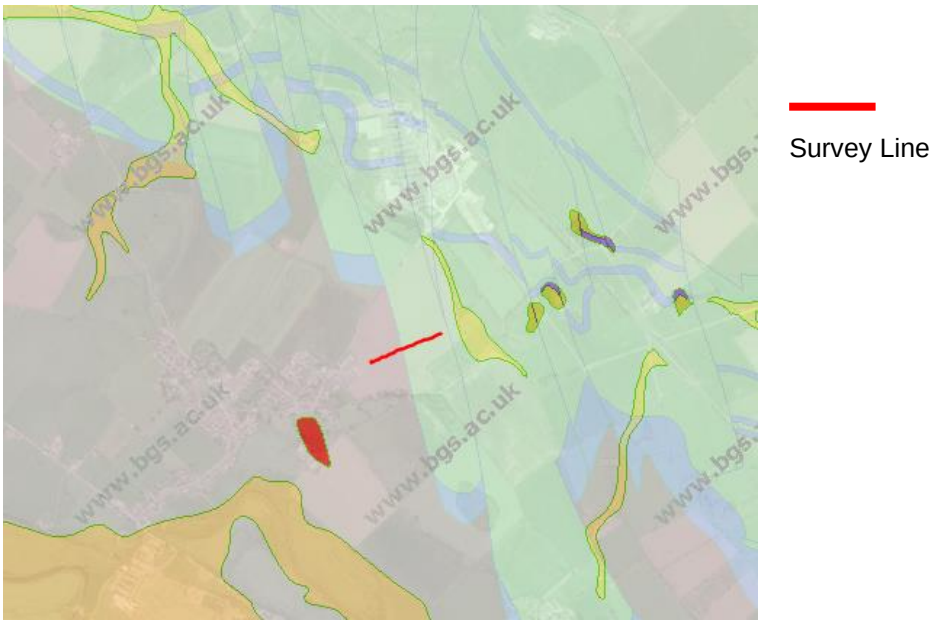


Plate 1: Extract of BGS geological map

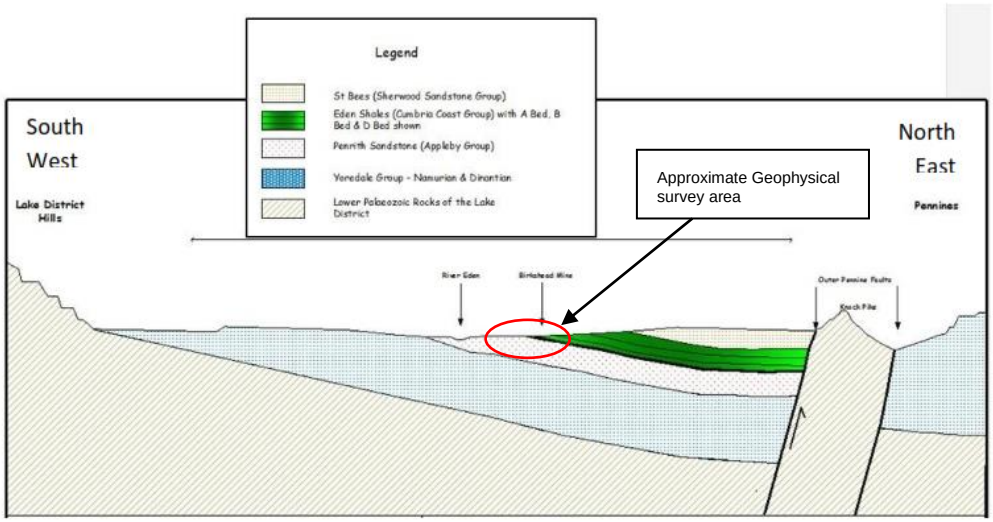


Plate 2: Diagrammatic Geological cross section of the Eden Valley

Information from British Gypsum indicates some areas of the site sit on top of untreated mine workings up to 25-35m depth, as shown in **Figure 2**. The mine workings utilised 'Room' and 'Pillar' techniques and the height of the workings are expected to be up to 5 m in height.

3 THE SURVEY

3.1 Objective and Geophysical Approach

A trial geophysical survey was commissioned to seek to determine the presence, depth, nature and subsurface extent of abandoned mine workings associated with the mineral extraction of gypsum at Kirkby Thore.

The geophysical techniques trialled were that of Electrical Resistivity Tomography (ERT), Seismic Refraction, and Seismic Reflection. The geophysical fieldwork was conducted between 16th February – 19th February 2021.

3.2 The Electrical Resistivity Imaging Technique

Different rocks/objects/saturating fluids exhibit different values of electrical resistivity. An electrical resistivity image describes the distribution of electrical resistivity as a function of depth and horizontal distance.

3.2.1 Theory

For any single measurement of ground resistance, an alternating electric current is injected into the subsurface via two metal stakes (electrodes) planted into the ground. One electrode behaves as the current source, whilst the current is returned to the surface to complete the electrical circuit through a second electrode. The current passing through the ground sets up a distribution of potential in the subsurface which is sampled by two additional electrodes (potential electrodes) across which a voltage is measured. The ratio of voltage to current is the resistance, R, of the ground through which the current has passed (**Figure 3A**).

The basic principle of the Wenner-Schlumberger array resistivity imaging method is shown in **Figure 3B**. A cable containing x electrode connections is positioned in a straight line and the electrodes are deployed along this line with an equal inter-electrode spacing, a. For each measurement, the two current electrodes (C1 & C2) are located on each end of the set of four electrodes, with the two potential electrodes (P1 & P2) in the centre. Once a measurement of ground resistance has been determined for one set of four electrodes, the next set of four electrodes is automatically selected and second measurement made. The process is repeated until the end of the line is reached. The line is then resurveyed with the spacing between the two centre electrodes held constant (at the initial spacing, a), and the spacing between the outer electrodes increasing to 2*a*, 3*a*, 4*a*, etc., up to a maximum outer electrode spacing of 35*a*. The measured resistance values are converted to values of what is termed as apparent resistivity (ρ_a) using the equation

$$\rho_a = \pi n(n+1)aR$$

The values measured are intimately related to the geometry of the electrodes used to obtain them and hence are termed apparent, not true, resistivities.

The results may be displayed as a pseudosection, which is made up of individual apparent resistivity values plotted at the mid-point of the four electrodes used to acquire them and at a depth of approximately half the inter-electrode spacing. The depth at which the apparent resistivity values are plotted reflects the depth of investigation of the measurement. Although the pseudosection can be viewed as an approximate image of the subsurface and indeed contains information on the subsurface geology, it is also influenced by the electrode geometry. In order to separate geometrical effects and produce an image of true resistivities of the ground and true depths to features within the ground, the data set is put through a sophisticated processing stage called *inversion*. The result of this is a final image of the distribution of resistivity with depth, along the line of the survey (**Figure 3C**).

3.2.2 Equipment

Syscal Pro

The equipment employed was the IRIS Instruments Syscal Pro system (see **Appendix A** for equipment specifications). The serial no. of the equipment used was 14609-1079061783-577. Seventy-two equally spaced electrodes are connected via multicore cables to a Syscal Pro earth resistance meter. Addressable electronic switching units, allow any four electrodes to be connected directly to the resistance meter. The measurement scheme is designed on a laptop computer, and then uploaded to the Syscal Pro. Measurements are taken automatically by the Syscal Pro as per the pre-defined survey sequence.

3.3 The Seismic Refraction & Reflection Technique

3.3.1 Seismic Refraction Theory

The seismic refraction method is based on the propagation of seismic waves through the subsurface, and their refraction at interfaces across which there is a sufficient increased contrast in acoustic velocity (see **Figure 4**). Analysis of the first arrival times of seismic data at an array of distances from the source can provide information on the geometry, depth, and elastic properties of subsurface materials.

The seismic energy is generated at the surface (in this case a Lightning mini-vibrator), and seismic waves arriving at positions along the survey line are recorded by geophones placed in the ground at or near to the surface. When a propagating seismic wave encounters a sufficient increased contrast in seismic velocity the wave path is deflected, or *refracted*, at an angle dependent upon the contrast in velocities. At a boundary across which there is a velocity increase a critical incident angle exists at which the seismic energy will travel along the boundary interface, from which a proportion of the energy will subsequently return to the surface, and be detectable by the geophone array. Careful analysis and inversion of this data can provide a seismic velocity model of the subsurface. The principal controls on the seismic velocity of

materials are the elastic moduli and density. Variations in these properties can be interpreted as material composition changes in the subsurface, and therefore can be related to geological strata. It is not possible in normal circumstances to obtain information on the geometry of strata boundaries across which there is a decrease in velocity with depth.

3.3.2 Seismic Reflection Theory

Elastic energy injected into the ground by an impulse or vibration source will propagate through the ground as seismic waves. Were a wave encounters an acoustic impedance (determined by the elastic properties and density of the material) a proportion of the energy will be reflected. Recordings of the reflected signal can be processed to produce an image of the subsurface.

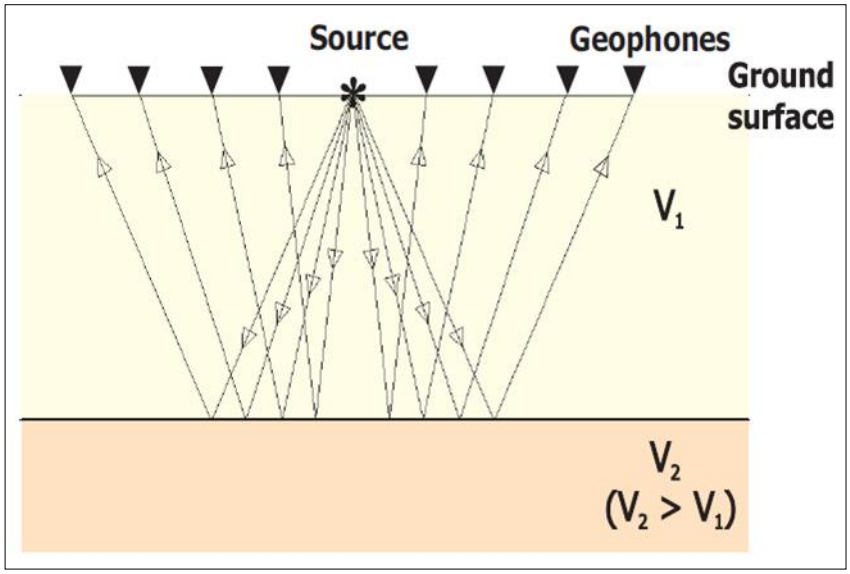


Plate 3: The Seismic Reflection Theory

When more than one seismic shot location is used, reflections that occur at the same point on an interface that displays an acoustic impedance will be detected at different geophones. This common point of reflection is known as the common midpoint (CMP). The term fold coverage describes the number of times the same point on a reflector is sampled. A seismic reflection survey can be designed to yield a certain fold coverage based on the geophone and shot spacing. A series of data processing stages are applied to the seismic reflection data in order to provide a seismic velocity model of the subsurface.

3.3.3 Equipment

The same equipment was used for the seismic refraction and reflection survey.

Geometrics Geode Ultra-Light Exploration Seismograph

The Geode module measures and records a digital seismic response signal from an array of geophones. 14 Hz vertical geophones were deployed at 5 m spacing. Geode

modules can be connected to increase the number of channels. A Geode specification sheet is included in **Appendix A**. A laptop computer is used to store data and control stacking parameters. The serial no.s of the equipment used was 6296 and 6351.

Mechatronics Lighting Mini-Vibrator

The seismic source used was the Lightning mini-vibrator manufactured by Mechatronics (Serial number LV0019D03003). The specification sheet can be found in **Appendix A.**

Plate 4: Seismic reflection data collection on site using the Mechatronics Lightning seismic source.

3.4 Survey Design

The layout of the trial geophysical survey line is shown in **Figure 2.** The survey line is positioned as such that, should the mining records be correct, half the line is located above the mine workings and half the line above natural ground.

3.4.1 Resistivity Survey Design

Resistivity data were collected using the Wenner-Schlumberger (WS) array. Data for each survey line were collected with an electrode spacing of 4 m, allowing a maximum depth of 45 mbgl.

The ERT data were collected on the 16th February 2021. The weather was overcast. The ground conditions were described as soft and pooled water was present within sections along the line.

Table 1: Summary of Resistivity Survey Line

Line	*Total Length*	*No. Electrodes*	*Electrode Spacing*	*Start Point*	*End Point*
1	356 m	90	4 m	364397.740E 525982.924N	364741.752E 526069.029N

The location of the survey lines were also surveyed using a Leica GS08 GPS, providing accurate location data referenced to the Ordnance Survey OSGB36 National Grid system.

3.4.2 Seismic Refraction and Reflection Survey Design

The seismic reflection and seismic refraction data were collected at the same time; by utilising the same equipment and methodology, the seismic data collected can be used for both applications. The position of the start and end of the seismic line are summarised in **Table 2** and displayed on **Figure 2.**

The seismic data were collected between the 17th and 19th February 2021. The weather on the 17th & 18th was overcast with heavy rain on the 19th February. The ground conditions were described as soft and pooled water was present within sections along the line.

The recording equipment used was the Geometrics Geode Ultra-Light Exploration Seismograph. The Geode module measures and records a digital seismic response signal from an array of geophones. One Geode module can record up to 24 channels, and additional modules can be connected in series to increase the number of channels. Data were collected using two Geodes with serial numbers S/N 6034, and S/N 5403.

A Geode specification sheet is included in **Appendix A** along with the certificates of conformity. A laptop computer was used to run the acquisition software (Seismodule Controller) which allows the operator to control acquisition parameters and define geometry and to monitor data in real time in addition to storing data.

For the survey line (240 m), 48 geophones were deployed. 14 Hz vertical spiked geophones were deployed at 5 m intervals along the survey line and were inserted directly into the ground surface, these were buried to help reduce cultural noise from the wind and rain.

Shots at -20 m and 250 m offend were employed for processing the Seismic Refraction with shots at -100m to 310 m offend were recorded for the Seismic Reflection survey.

Table 2: Summary of Seismic Refraction and Reflection Survey Line Geophone positions

Line	*Total Length*	*No. Geophones*	*Geophone Spacing*	*Shot Spacing*	*Start Point*	*End Point*
1	235 m	48	5m	2.5 m	364449.518E 525996.499N	364676.929E 526054.513N

All the survey lines are located using a Leica GS08 GPS, providing accurate location data referenced to the Ordnance Survey OSGB36 National Grid system.

The data were acquired as zero phase and normal polarity. A series of pre-acquisition parameter tests were undertaken in the middle of the line before collecting the data for the entire line. The parameter tests included verifying the sweep range of the vibrator to ensure that optimal data were being collected. Source induced force was tested between the range of 700-1300 Newtons, with good coupling observed in the data. Sample interval rates and sweep time were tested. Final acquisition parameters were determined by the lead geophysicist. After the tests, the following parameters were used for the data acquisition on the survey lines:

- Frequency Range – 15-150 Hz
- Sample interval – 1 ms
- Sweep time – 10 s
- Listen time – 1.5 s
- Force applied –1000N off end and 800N in the main spread

At each source location between 3 - 5 shots were undertaken. During the acquisition process the quality of the data was closely monitored by undertaking vibriosis correlation using the pilot channel, checking similarity between shots and looking at amplitude vs frequency plots. If seismic traces displayed a low signal-to-noise ratio the seismic shot was repeated.

As part of the QC of the data a selection of five shots were collected and then downloaded and subsequently correlated (vibroseis correlation) and checked within the Geogiga software. The shots were stacked to monitor for signal-to-noise content. A simple divergent correction, gains and bandpass filter were applied to ensure for quality. If shot signal-to-noise was deemed inadequate during this quality review they could be reacquired at time of acquisition.

Section 3.5.3 describes the seismic reflection processing data flow.

3.5 Data Processing and Presentation

The ERT and Seismic Refraction data is presented in **Figure 6** with the Seismic Reflection data displayed on **Figure 7**.

3.5.1 Electrical Resistivity Tomography

Resistivity data have been collected using roll-on sequences, so the datasets have been combined to create full spreads.

Raw resistivity data were filtered and 'despiked' to remove any erroneous data points using the specialist software package Prosys II.

Topography was added to the resistivity data file, which was subsequently processed using the specialist software RES2DINV. Following initial processing, further manual removal of any remaining spurious or bad data points was undertaken. An L1 Robust Block inversion was performed using a standard cut off factor. The final resistivity depth data were inverted with all topographical effects accounted for. Data were exported in a generic text format and imported into Geosoft's Oasis Montaj where inversion model data have been plotted as resistivity values with depth. The data have been plotted using minimum curvature gridding at a cell size of 1.

3.5.2 P-Wave Seismic Refraction Survey

The data were processed using the specialist software suite SeisImager2D. The data for each shot point were analysed and the time of the first arrival of seismic energy at the geophones picked using the PickWin module and then loaded into Plotrefa for analysis. During picking if the data displayed noise on the furthest traces from the source then a low or high pass filter was applied in order to remove noise and improve identification of the first arrivals. Care was taken by the processing geophysicist not to over filter the data and introduce an incorrect arrival time. A first arrival was not picked if a confident pick could not be made.

Using the PlotRefa module, an initial velocity model was created from analysis of the travel time curves and taking surface topography into consideration. The initial model used a minimum velocity of 0.3 km/s and maximum of 3.0 km/s with 15 layers.

The model was inverted and iterated through a number of calculation cycles up to 7 to provide the best match between the calculated and the observed data.

The result of the inversion is a plot of seismic velocity against depth. Data have been plotted in the Oasis Montaj software package using minimum curvature gridding with a cell size of 1.

3.5.3 P-Wave Seismic Reflection Survey

3.5.3.1 Data Reformatting and Resampling

Raw shot data were imported into FrontEnd (Geogiga) to analyse individual shots. At each location between seven and ten shots were acquired in order to improve signal to noise ratio. If any shots looked erroneous then these were removed.

In FrontEnd data were resampled to 1000 ms to make the files more manageable and remove incoherent data recorded. The pilot, base plate and reaction mass (first three

channels) were removed from the main file, the first two were put into individual files for vibroseis correlation testing. The baseplate and pilot had almost identical waveform. With little difference between the two after initial testing the pilot was chosen for use in vibroseis correlation. The shots recorded at the same location were stacked to form the shot record at each geophone, and the data were saved in a seg format file and output from FrontEnd. Overall, the signal-to-noise ratio at the site was good. Vertical stacking has removed most of the noise.

3.5.3.2 Apply Geometry and Static correction

Within Reflector (Geogiga software) topography data acquired in the field were added. The topography varied significantly towards the east of the site, with a steep slope.

A divergence correction was applied to retrieve the energy decay loss with depth. A velocity of 1,700 m/s was used in the correction. The divergence correction increased the wavelet amplitude and increased the frequency content which changes as the wave propagates through the earth, recovering the signal at depth.

An RMS gain was used to increase the amplitude and normalise the section.

3.5.3.3 Denoise/ despike

The amplitude and frequency were reviewed to check the frequency spectrum. A bandpass filter was used with a low pass 15 Hz, high pass 185 Hz, low slope 36 dB/Oct and high slope 72 dB/Oct. The bandpass filter helped remove some of the background noise and increased the signal to noise appearance.

3.5.3.4 Ground roll removal (FK Filter)

An F-K filter was also used to help reduce some of the influence of ground roll, back-scatter noise and high velocity noise, particularly the noise from the rain. Back scatter and ground roll were clear within the data therefore a spectrum was removed from the data using positive and negative numbers in a trapezium shape along the frequency.

The shots in the middle of the profile were used for the F-K filter tests as these displayed the most apparent reflection and noise events.

3.5.3.5 CMP sorting (brute stack)

CMP stacks look good with events displayed within the sections.

3.5.3.6 *Deconvolution*

Spiking deconvolution was used to compress the source wavelet into a zero-phase spike of zero width, eliminating the effect of the source wavelet and thus leaving the effect of the earth's reflectivity in the seismogram.

A filter length of 90 ms was to helped remove some of the noise in the lower section of the gathers and helped remove some of the multiples.

3.5.3.7 *Velocity Picking*

The semblance plots could be picked with moderate confidence. The velocity spectra are clear for deriving velocities for the model as boundaries.

3.5.3.8 *NMO Correction*

The data were NMO corrected using the velocity data, this helped level the gathers in most places but over and under compensated in some places.

3.5.3.9 *Denoise*

A random noise attenuation was used to enhance the signal to noise ratio. A filter length of 6 ms was used with a window size of 20 horizontal (traces) and 40 vertical (ms).

The denoise serves to remove some noise and enhances the signal to noise ratio.

3.5.3.10 *Residual Statics*

Residual statics were tested within Geogiga but

3.5.3.11 *Demultiple (Gap Deconvolution)*

On Line 4E-4A predictive deconvolution was used to alter the wavelet shape and amplitude spectrum thus increasing the resolution. Different window sizes were tested.

3.5.3.12 *Trim Statics*

The data were trimmed after artificial noise had been created over the gathers, again to further enhance the signal to noise ratio. This helped with the near-surface variation and smoothing using the second-order static correction.

3.5.3.13 Migration

The gathers were stacked and then migration applied with an aperture window of 4. Different aperture windows were tested and the smaller the window the less smoothed the data appeared. Data is time to depth converted using the velocity model derived from the semblance plots.

4 DATA INTERPRETATION

4.1 Data Quality

4.1.1 Electrical Resistivity Tomography (ERT) Data Quality

ERT data were of good quality. Noisy and spurious data points were removed from the resistivity dataset before inversion. The inversion returns a root mean square error which is an indication of how well the calculated apparent resistivity data fits against the measured data. Generally, an RMS value of lower than 10 % is good and shows a good fit between the calculated and the measured resistivity values. The RMS values for the processed dataset was 4.7%.

4.1.2 P-Wave Seismic Refraction Data Quality

The P-Wave data collected were of satisfactory quality with first arrivals able to be identified. Significant noise was observed in the dataset and some filtering of the data was applied so the first arrivals could be observed at geophones positioned 40 m to 60 m from the source location.

The tomographic inversion returns a root mean square error value which is an indication how well the observed ray paths fits against the synthetic modelled ray paths. Generally, an RMS value of lower than 10 % is acceptable and shows a good fit between observed and calculated travel times. The dataset returned a RMS value of 13.35% which may be due to the amount of noise observed in the dataset.

4.1.3 P-Wave Seismic Reflection Data Quality

Overall, the signal-to-noise ratio at the site was good and reflection horizons are observed in the data.

4.2 Results

4.2.1 Electrical Resistivity Tomography (ERT)

The ERT results are presented in **Figure 6**.

The results of the electrical resistivity survey are displayed as the variation of apparent resistivity with depth against horizontal distance. The data are presented as a colour

filled contour plot on a linear scale ranging from 0 to 30 Ωm^{-1} at 5 Ωm^{-1} contour intervals. The dark blue colours indicate relatively low resistivity and warm red colours indicate relatively higher resistivity values.

4.2.2 P-Wave Seismic Refraction

The results of the P-wave refraction survey are presented in **Figure 6**.

The P-wave data are presented on a linear scale ranging from 0 to 3.0 km/s at 0.1 km/s intervals. The cold dark blue colours indicate lower seismic velocities and warm red colours indicate higher seismic velocities.

4.2.3 Seismic Reflection

The seismic reflection results are presented in **Figure 7**.

The seismic reflection data are presented on a panel with elevation on the y-axis. The peaks are displayed as red and the troughs black (negative amplitude of wave). Data have been collected and filtered to within the 15-150 Hz frequency range. The resolution of the data is good to a depth of ~60 mbgl.

4.3 Interpretation

The seismic and resistivity measurements have been inverted and presented for each line in **Figures 6 and 7.** An interpretation of these models are shown on each figure, highlighting areas of higher conductivity and/or lower seismic velocity.

The resistivity data shows numerous features including a high resistance area in the centre of the survey area > 300 Ω/m. This has been interpreted as the Penrith Sandstone. Above this there is a lower resistivity area dipping to the North East which is assumed to be the Eden Shale deposits. In this section between 240 m and 300 m along the survey line there is also a highly resistive area. This area may indicate the presence of the mine workings. A higher resistance may be caused by the workings being an air void rather than fluid filled, this anomaly appears to be the correct approximate depth with the mine floor assumed to be around ~80-90 mOD. To the western side of the survey there appears to be a boundary between 110 m to 140 m bounding the Penrith Sandstone. This may be indicative of the fault observed on the BGS geological map as shown **Plate 1**.

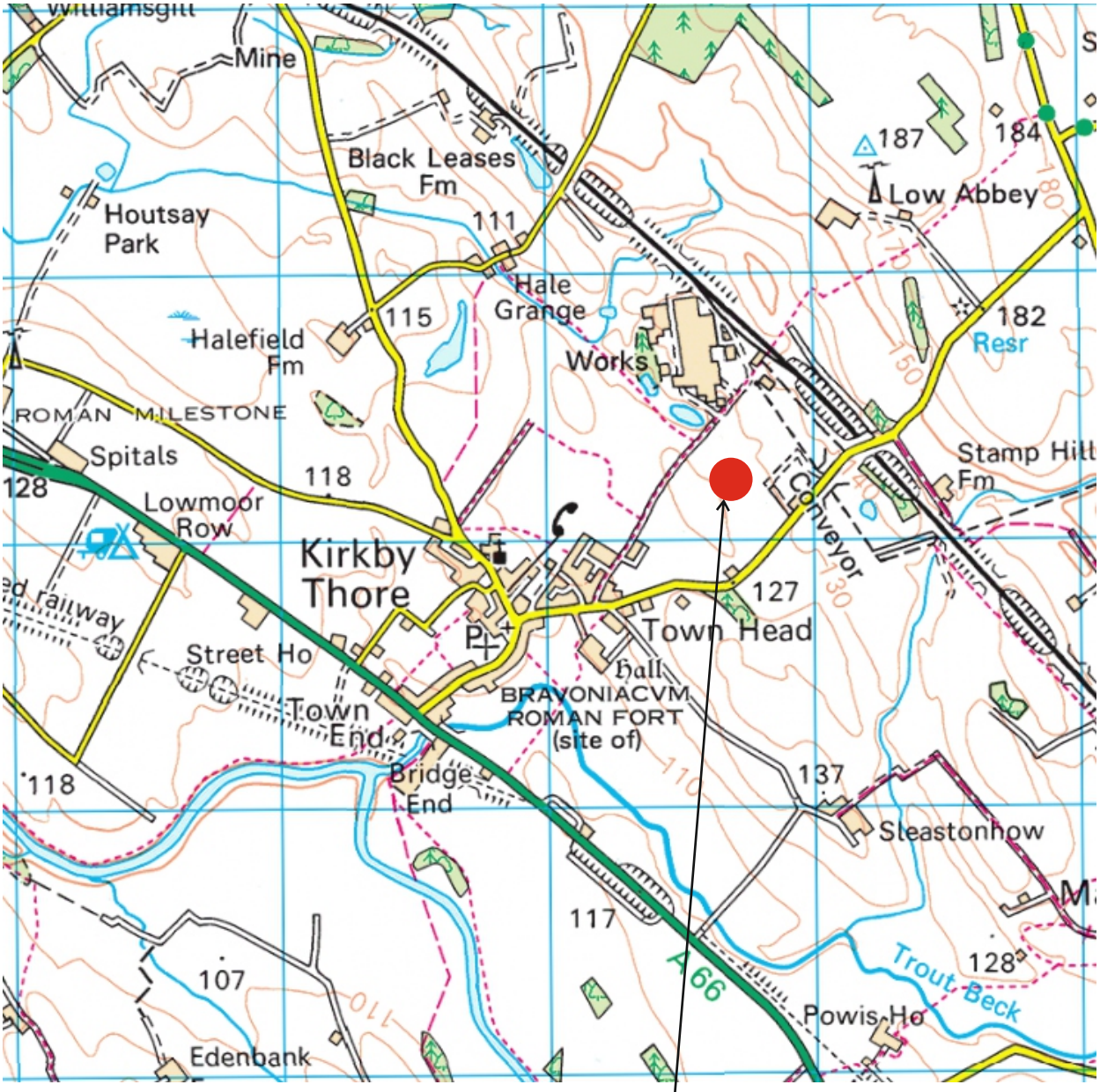
The P-Wave Refraction results display some variation to the North East end of the survey line. The velocity decreases in eastern side. No definitive boundaries are observed what may relate to the mine workings in the area.

The Seismic Reflection survey displays multiple vertical anomalies. These features may relate to fractures and faulting within the stratigraphic layers. There is a lower amplitude zone in the centre of the survey area between 110 m to 150 m along the survey line which may be due to the boundary between the sandstone and shale. A slight change in amplitude is observe between 120 m to 250 m at approximately 80 m elevation which may relate to the north east dipping boundary between the Penrith Sandstone and Eden Shale. No definitive boundaries are observed what may relate to the mine workings in the area.

5 CONCLUSIONS

- On the instructions of Structural Soils Ltd, RSK Environment Limited, carried out a trial geophysical site investigation to seek to determine the presence and location of mine workings at Kirby Thore on the planned A66 route.
- The geophysical techniques trialled were that of ERT (Electrical Resistivity Tomography), P-Wave seismic refraction and P-Wave Seismic Reflection. The survey works were carried out between 16th February – 19th February 2021.
- The ERT survey observed multiple anomalies in the dataset. These have been interpreted as the Penrith Sandstone and Eden Shale formation dipping towards the North East. A vertical fault is also interpreted dipping towards the South West. A significant anomaly was observed in the Eden Shale formation which has been interpreted as the mine workings.
- Using the P-Wave seismic refraction data, lower velocities are observed to the North Eastern side of the site. The velocities are generally lower in this area and may indicate the change in lithologic to the Eden Shales.
- The Seismic Reflection display multiple vertical anomalies which may be indicative of faults in the lithological layers. A slight dipping reflection is interpreted as the boundary between the Penrith Sandstone and Eden Shale.
- Of the three techniques trialled the ERT survey appears to provide the most information on the location of the mineworking's. We would therefore recommend employing the ERT technique if any further surveys are commissioned to determine the location of mine workings in the area.

FIGURES



Notes

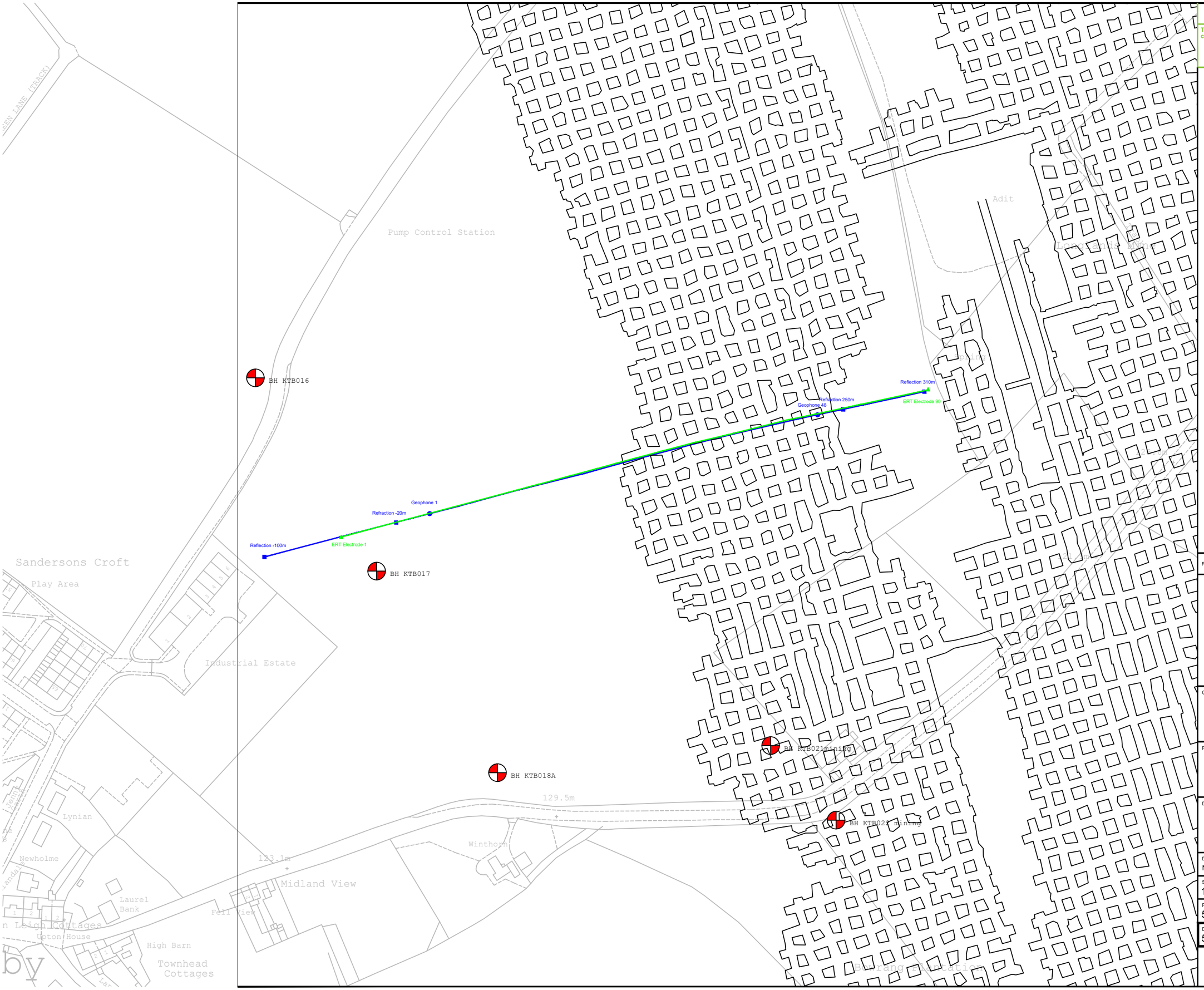
Extract from Ordnance Survey 1:25,000 scale map

RSK

SITE LOCATION

National Grid Reference: NY 646 261

Client: STRUCTURAL SOILS LTD	Figure: 1	Job: 55735
Site/Project: A66 KIRKBY THORE	Scale: 1:25,000 (@A4)	Date: March 2021



NOTES

The specific risks associated with the content of this drawing are considered to be:–

(1) The topographical baseplan has been supplied by the client and has not been checked for accuracy.

Rev.	Date	Amendment	Drawn	Chkd.	Appd.

RSK

[redacted]

Client

STRUCTURAL SOILS LTD

Project Title

A66 - KIRKBY THORE

Drawing Title

SURVEY LAYOUT

Drawn	Date	Checked	Date	Approved	Date
NW	05/03/21	CG	05/03/21	SO	05/03/21

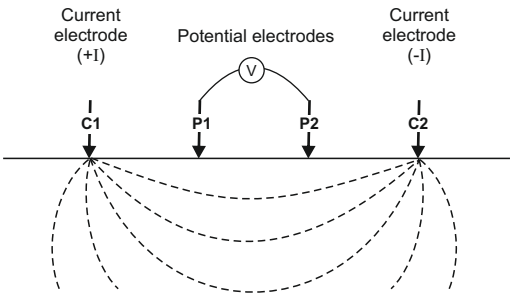
Scale	Orig Size	Dimensions
1:2000	A3	

Project No.	Drawing File
55735	550735 Fig. 1

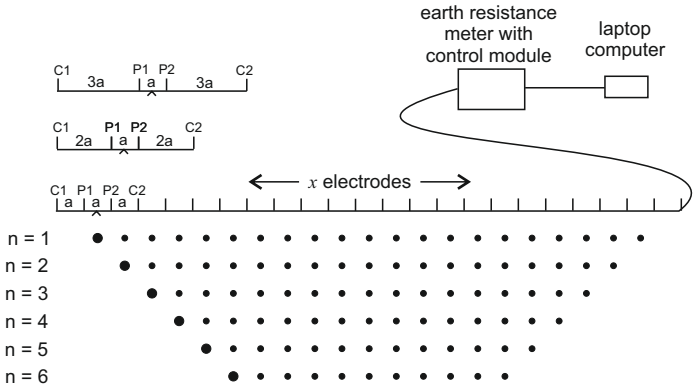
Drawing No.	Rev.
55735-R01(00) Fig.1 Sheet 1 of 1	

Scale

0 20 40 60 80 100m

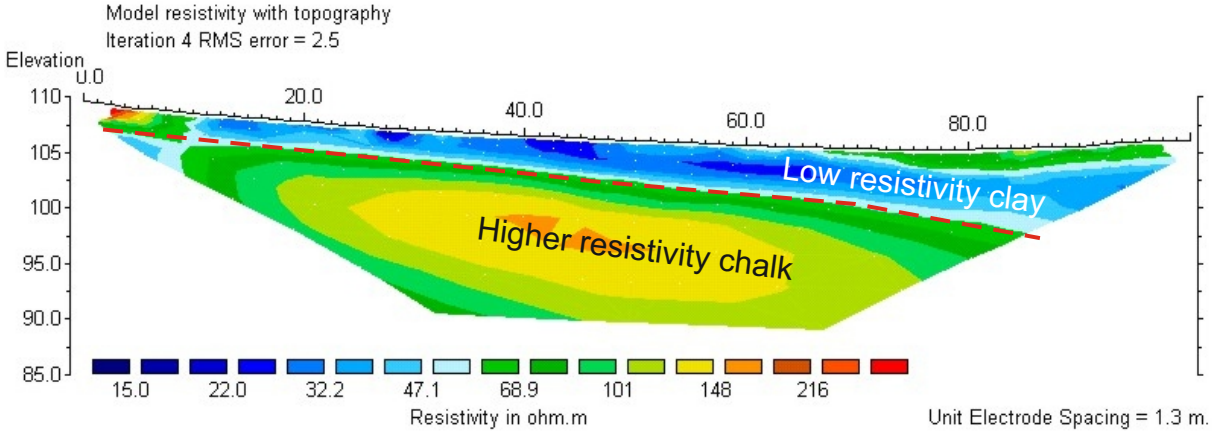


A Obtaining a measurement of ground resistance



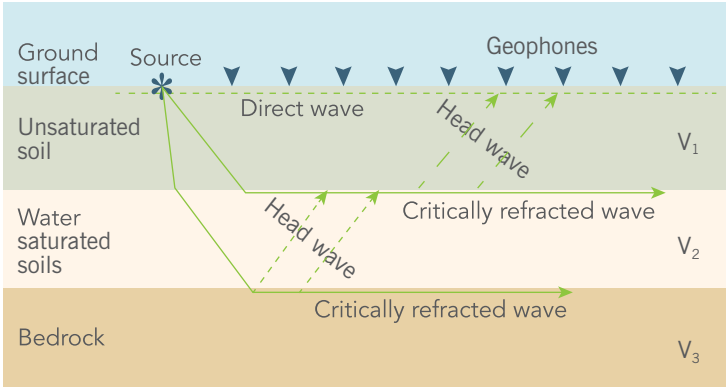
B An imaging survey setup

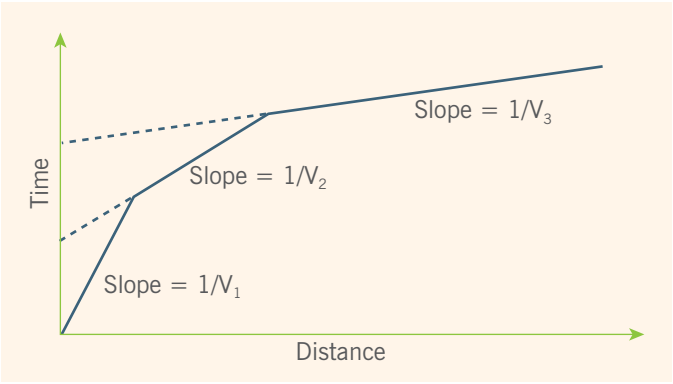
C A fully processed electrical resistivity pseudosection



RSK	**THE ELECTRICAL RESISTIVITY IMAGING TECHNIQUE** **WENNER-SCHLUMBERGER**	
Client: **STRUCTURAL SOILS LTD**	Figure: 3	Job: 55735
Site/Project: **A66 KIRKBY THORE**	SCALE N/A	DATE March 2021

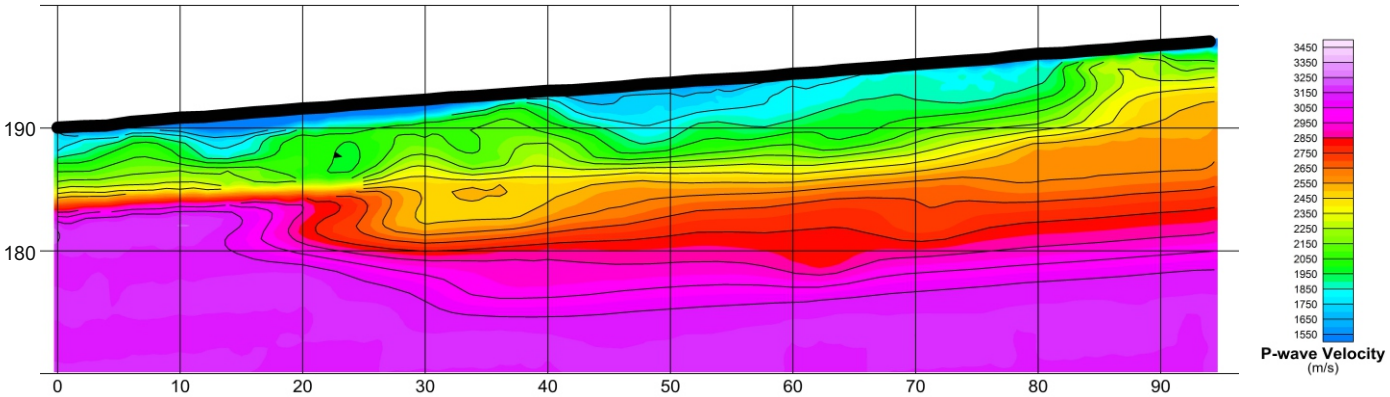
A **The principle of seismic refraction surveys**





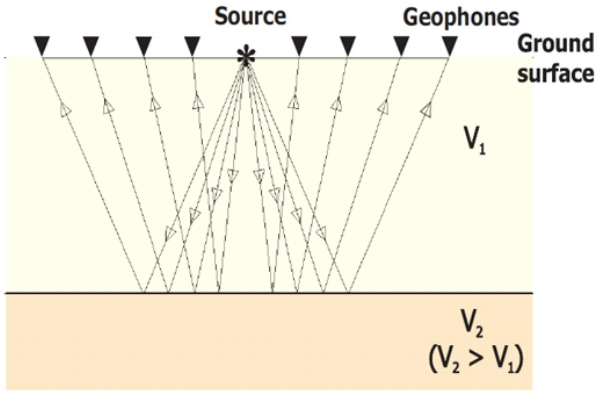
B **A seismic survey set-up**

C **A fully processed seismic refraction line**



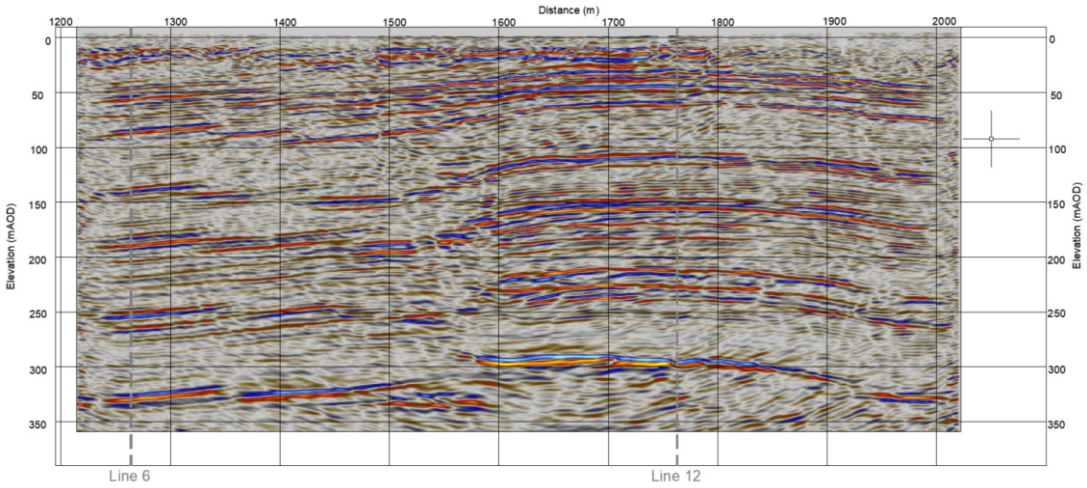
RSK	**THE SEISMIC REFRACTION TECHNIQUE**	
Client: STRUCTURAL SOILS LTD	Figure: 4	Job: 55735
Site/Project: A66 KIRKBY THORE	SCALE N/A	DATE March 2021

A **The principle of seismic reflection surveys**

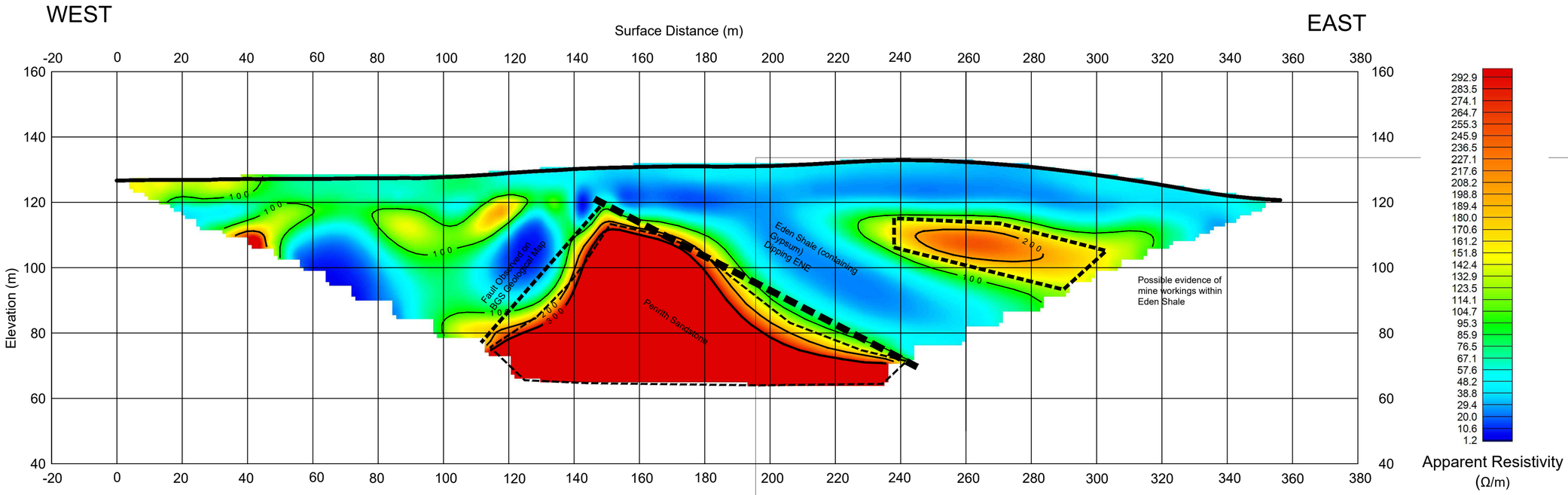


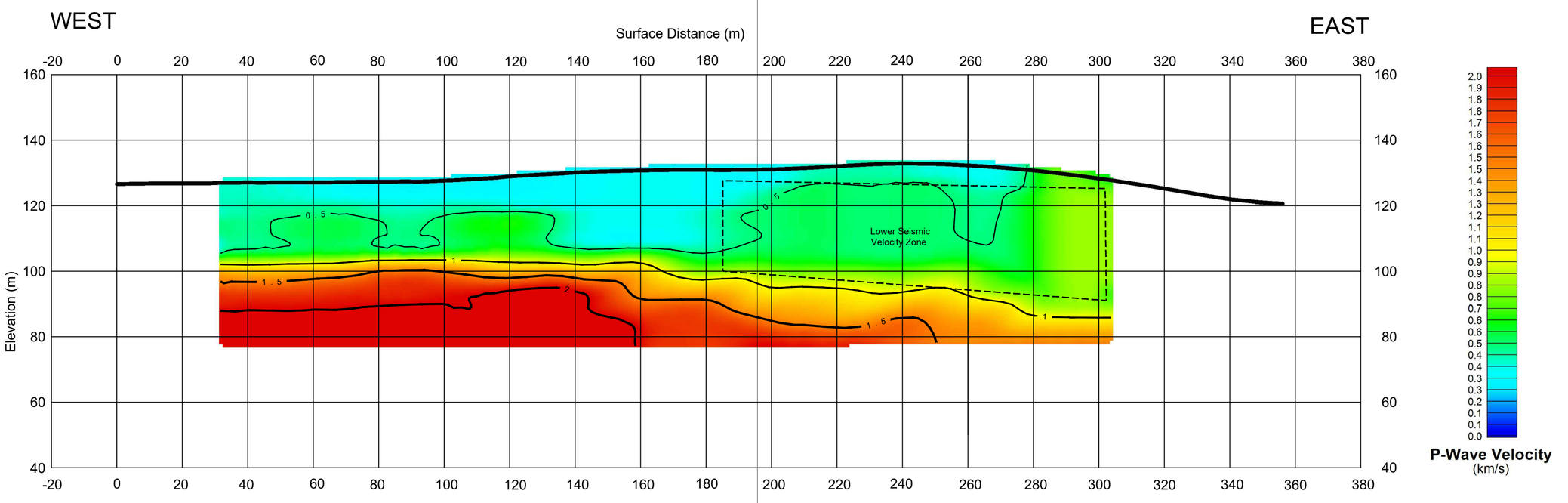
B **A seismic survey set-up and Lighting Seismic source**

C **A fully processed seismic reflection line**



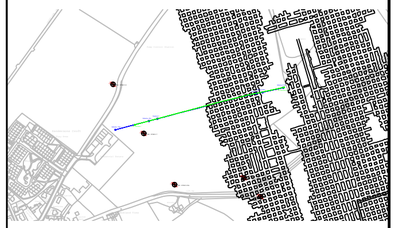
RSK	**THE SEISMIC REFLECTION TECHNIQUE**	
Client: STRUCTURAL SOILS LTD	Figure: 5	Job: 55735
Site/Project: A66 KIRKBY THORE	SCALE N/A	DATE March 2021





NOTES

The specific risks associated with the content of this drawing are considered to be:–



1:10,000 Scale (A2)

KEY

GEOPHYSICAL INTERPRETATION

Rev.	Date	Amendment	Drawn	Chkd.	Appd.

RSK

[redacted]

Client

STRUCTURAL SOILS LTD

Project Title

A66 - KIRKBY THORE

Drawing Title

GEOPHYSICAL SURVEY TRIAL ERT AND SEISMIC REFRACTION RESULTS

Drawn	Date	Checked	Date	Approved	Date
CG	11/03/21	SO	12/03/21	SO	12/03/21

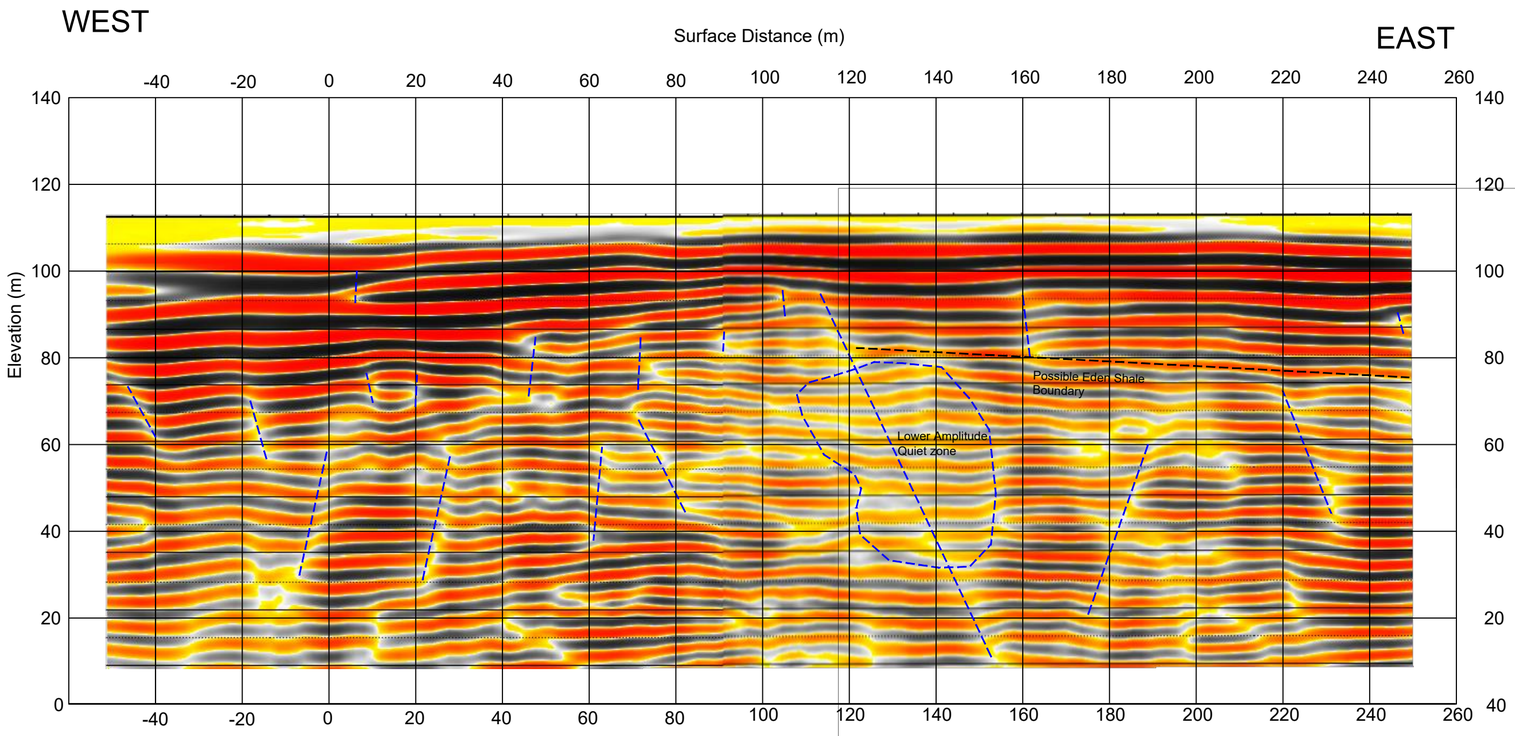
Scale	Orig Size	Dimensions
1:1000	A2	

Project No.	Drawing File
55736 R01(00)	55736 Fig. 6

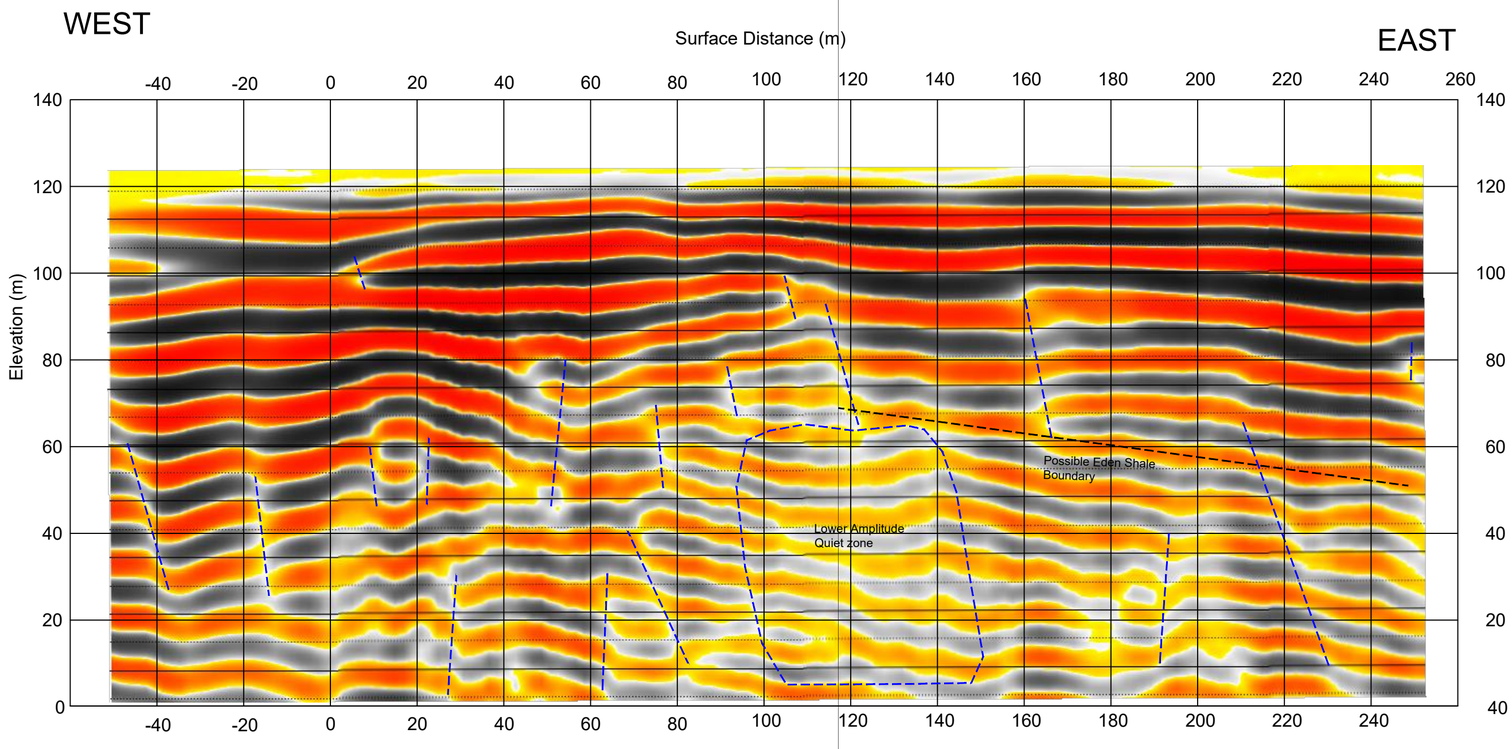
Drawing No.	Rev.
55736 R01(00)Fig.6 Sheet 1 of 1	

Scale 0 10 20 30 40 50m

Seismic Reflection - Time Migrated



Seismic Reflection - Depth Migrated



NOTES

The specific risks associated with the content of this drawing are considered to be:–

1:10,000 Scale (A2)

KEY

Seismic polarity

- +

SEISMIC VERTICAL ANOMALY

SEISMIC HORIZONTAL ANOMALY

Rev.	Date	Amendment	Drawn	Chkd.	Appd.

RSK

Client

STRUCTURAL SOILS LTD

Project Title

A66 - KIRKBY THORE

Drawing Title

GEOPHYSICAL SURVEY TRIAL
SEISMIC REFLECTION RESULTS

Drawn	Date	Checked	Date	Approved	Date
CG	11/03/21	SO	12/03/21	SO	12/03/21

Scale	Orig Size	Dimensions
1:1000	A2	

Project No.	Drawing File
55736 R01(00)	55736 Fig. 7

Drawing No.	Rev.
55736 R01(00) Fig.7 Sheet 1 of 1	

Scale
0 10 20 30 40 50m

APPENDIX A

Equipment Specification Sheet

SYSCAL PRO SYSTEM

SYSCAL Pro *Switch*-48 unit with its graphic LCD screen

10 CHANNELS

RESISTIVITY AND IP SYSTEM

SWITCH CAPABILITY

- **10 simultaneous reception channels**
- **1000 V – 250 W – 2.5 A**
- **Automatic injection ranging**
- **Electrodes switching capability**

SYSCALPro: the SYSCAL Pro unit is a new system designed for high productivity resistivity and IP measurements. It features some high output capabilities allowing to work in any field conditions for groundwater exploration and for civil engineering or environment applications.

Automatic injection ranging: the output current can be automatically adjusted to optimize the input voltage values and ensure the best measurement quality. The system offers also the possibility to inject the current with a voltage specified by the operator.

IP measurement: IP curves of the 10 channels can be directly visualized in real time thanks to the graphic LCD screen.

Marine application: a specific mode allows the system to be used for continuous logging, especially dedicated to marine applications; in that mode, a GPS can be directly connected to the unit by a serial link for a continuous recording of the location of the 10 channels all along the profile ; a set of 10 resistivities is measured and stored approximately every 2 seconds. In that case, specific cables are supplied to fit to that environment. A specific remote PC software can be used for data storage and for a graphical picturing in real time of the resistivity pseudo-section.

Remote software: a specific remote software can be used to drive the unit from a PC. This function has the advantage to store the data directly in the PC hard disk without memory limitation (useful for Marine application) and offers also the opportunity to pre-program some sequences of measurement at user defined timing intervals (useful for ERT acquisition).

Switching capability: internal switching boards can be added to the basic SYSCAL Pro unit to make it a very fast resistivity imaging system; in that version, the unit is called SYSCAL Pro Switch-48 - 72 or 96 (for a 48 – 72 or a 96 electrodes switching configuration) and allows to obtain simultaneously a set of 10 measurements and performs the switching of the electrodes automatically. Some external switching box(es), called Switch Pro, can be added to the unit for 3D investigations. In the Switch version, the max. output features of the unit are: 800 V – 250 W – 2.5 A.

TECHNICAL FEATURES

OUTPUT SPECIFICATIONS

- Automatic injection ranging (microprocessor controlled)
- Current: up to 2.5 A
- Voltage: up to 1000 V (1500 V with an external DC/DC converter)
- Power: up to 250 W (500 W with an external DC/DC converter)
  Possibility to use an external AC/DC 1200 W converter
- Pulse duration: 0.2, 0.25, 0.5, 1, 2, 4 or 8 s
- Current measurement precision: 0.2 % typical
- *Switch* version output voltage: up to 800 V

INPUT SPECIFICATIONS

- Measuring process: automatic ranging and calibration
- Input impedance: 100 MΩ
- Input voltage:
  Max. channel 1: 15 V
  Max. channel 2 to channel 10: 15 V
  Protection up to 1000V
- 50 to 60 Hz power line rejection
- Voltage measurement:
  Precision: 0.2 % typical
  Resolution: 1 µV
- Noise reduction: automatic stacking number in relation with a given standard deviation value
- SP compensation through automatic linear drift correction
- Induced Polarization (chargeability) measured over up to 20 automatic or user defined slices

GENERAL SPECIFICATIONS.

- Up to 4000 electrodes can be used
- Data flash memory: more than 21 000 readings
- Serial link RS-232 data download
- Power supply: two internal rechargeable 12V, 7.2 Ah batteries ; optional external 12V standard car battery can be connected to the transmitter part
- Weather proof
- Shock resistant fiber-glass case
- Operating temperature: -20 to +70 °C
- Dimensions (SYSCAL Pro *Switch*-48): 31 x 23 x 36 cm
- Weight (SYSCAL Pro *Switch*-48): 13 kg
- Weight of a 24 take-outs (spaced 5 m) string on a reel: 23 kg

IRIS
SYSCAL PRO

GEODE ULTRA-LIGHT EXPLORATION SEISMOGRAPH

A/D Conversion: 24 bit result using Crystal Semiconductor sigma-delta converters and Geometrics proprietary oversampling.	DynamicRange:144 dB (system), 110 dB (instantaneous, measured) at 2ms, 24dB.
Distortion: 0.0005% @ 2 ms, 1.75 to 208 Hz.	Bandwidth:1.75 Hz to 20 kHz. Low corner frequency option available.
Common Mode Rejection:> -100 dB at <=100 Hz, 36 dB.	Crosstalk: -125 dB at 23.5 Hz, 24 dB, 2 ms.
Noise Floor: 0.2uV, RFI at 2 ms, 36 dB, 1.75 to 208 Hz.	Stacking Trigger Accuracy: 1/32 of sample interval.
Maximum Input Signal: 2.8 VPP.	Input Impedance: 20 kOhm, 0.02 uf.
Preamplifier Gains: SGOS software enables selectable gain pair of either 24 or 36 dB. MGOS software selection between jumpered gain pair 12 and 24 dB, gain pair 24 and 36 dB, or 0dB.	Anti-alias Filters: -3 dB at 83% of Nyquist frequency, down 90 dB.
Pre-trigger Data:Up to 4,096 Samples. Optional event detection software enables system for earthquake, vibration monitoring.	Sample Interval:0.02, 0.3125, 0.0625, 0.125, 0.25, 0.5, 1.0, 2.0, 4.0, 8.0, 16.0 ms.
Record Length:16,000 samples standard, 64,000 samples optional [2]	Delay:0 to 9999 ms in 1 ms steps.
DataTransmission:Uses reliable Ethernet connections and requires no custom transmission software. Interfaces directly with network capabilities of Windows 95/98/NT.	AuxiliaryChannels:All Geode channels can be programmed as either AUX or DATA. Fixed data aux channels available in StrataVisor DZ.
Instrument Tests:Optional built-in daily, weekly and monthly testing available. External laboratory quality oscillator available to measure noise, crosstalk, dynamic range, gain similarity and trigger accuracy to factory specification	Acquisition and DisplayFilters: • LowCut:OUT, 10, 15, 25, 35, 50, 70, 100, 140, 200, 280, 400 Hz, 24 or 48 dB/octave, Butterworth. • Notch:50, 60, 150, 180 Hz and OUT, with the 50 dB rejection bandwidth 2% of center frequency. • HighCut:OUT, 250, 500 or 1000 Hz, 24 or 48 dB/octave.
LineTesting:Real time noise monitor displays real-time output from geophones. Optional geophone pulse test helps identify bad geophones and shorted or broken cables.	
Data Storage:Stores data locally on laptop hard drive for transfer to portable media . Additional tape options available. [2]	

GEODE SEISMOGRAPH

RSK

20 Eden Way
Leighton Buzzard, Beds LU7 4TZ
Tel: [redacted]
Email: [redacted]
Web: [redacted]

4/02/2021

CERTIFICATE OF CONFORMITY

This is to certify that the Geode seismograph, serial number 6296, manufactured by Geometrics Inc, of San Jose, California has passed our rigid electronic and mechanical tests and that it satisfies the specifications required.

The test equipment used for this evaluation are themselves covered by a valid UKAS certificate of calibration No 3345070001.

Inspector's signature

M. Arif

For and on behalf of Geomatrix Earth Science Ltd

bsi. ISO 9001 Quality Management
599203

20 Eden Way
Leighton Buzzard, Beds LU7 4TZ
Tel: [redacted]
Email: sales@geomatrix.co.uk
Web: [redacted]

4/02/2021

CERTIFICATE OF CONFORMITY

This is to certify that the Geode seismograph, serial number 6351, manufactured by Geometrics Inc, of San Jose, California has passed our rigid electronic and mechanical tests and that it satisfies the specifications required.

The test equipment used for this evaluation are themselves covered by a valid UKAS certificate of calibration No 3345070001.

Inspector's signature

M. Arif

For and on behalf of Geomatrix Earth Science Ltd

bsi. ISO 9001 Quality Management
599203

Lightning Seismic Vibrator

The Lightning is an electromagnetic seismic vibrating source ideal for shallow (200m) geological exploration and engineering projects.

The Lightning is most commonly deployed on an electric wheeled or tracked vehicle to allow access over uneven slippery terrain.

The electric tracked vehicle supplied with the Lightning can be loaded into the back of a high top van fully assembled for easy fast deployment on site. With sufficient battery power for one and half days of field operation the tracked electric vehicle can cope with inclines of up to 15º and access areas which are restricted to vehicles.

For larger area coverage the lightning can be fitted to an electric lift mounted to the front or rear of a vehicle, via a standard tow hitch. When mounted on an ATV the lightning can access even the most remote locations. The lift will also apply addition load to the source plate enhancing ground coupling.

With an electric drive motor and mount for the electronics and battery module the trolley can be manoeuvred by a single operator. The concept has been further developed into a full remote control vehicle deployment for use in mines and tunnels.

For sites constrained by surface furniture (railings, dust bins, lamp posts etc.…) the source plate can be positioned use a hand trolley and loaded with blast.

Dimensions

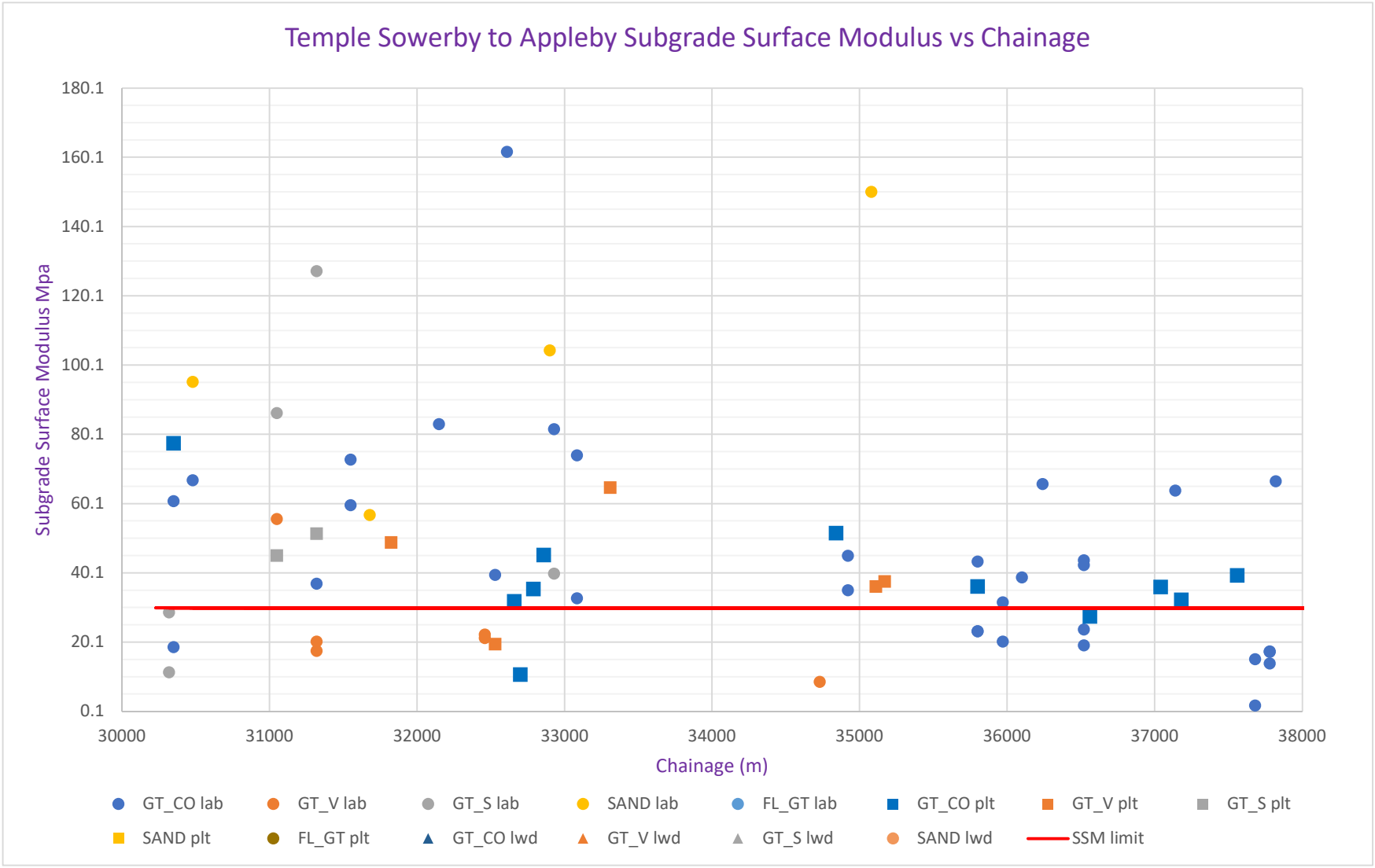
Physical	***Dimensions (L x W x H)***	***Weight***
(instrument only)	0.4m x 0.4m x 0.15m	90kg

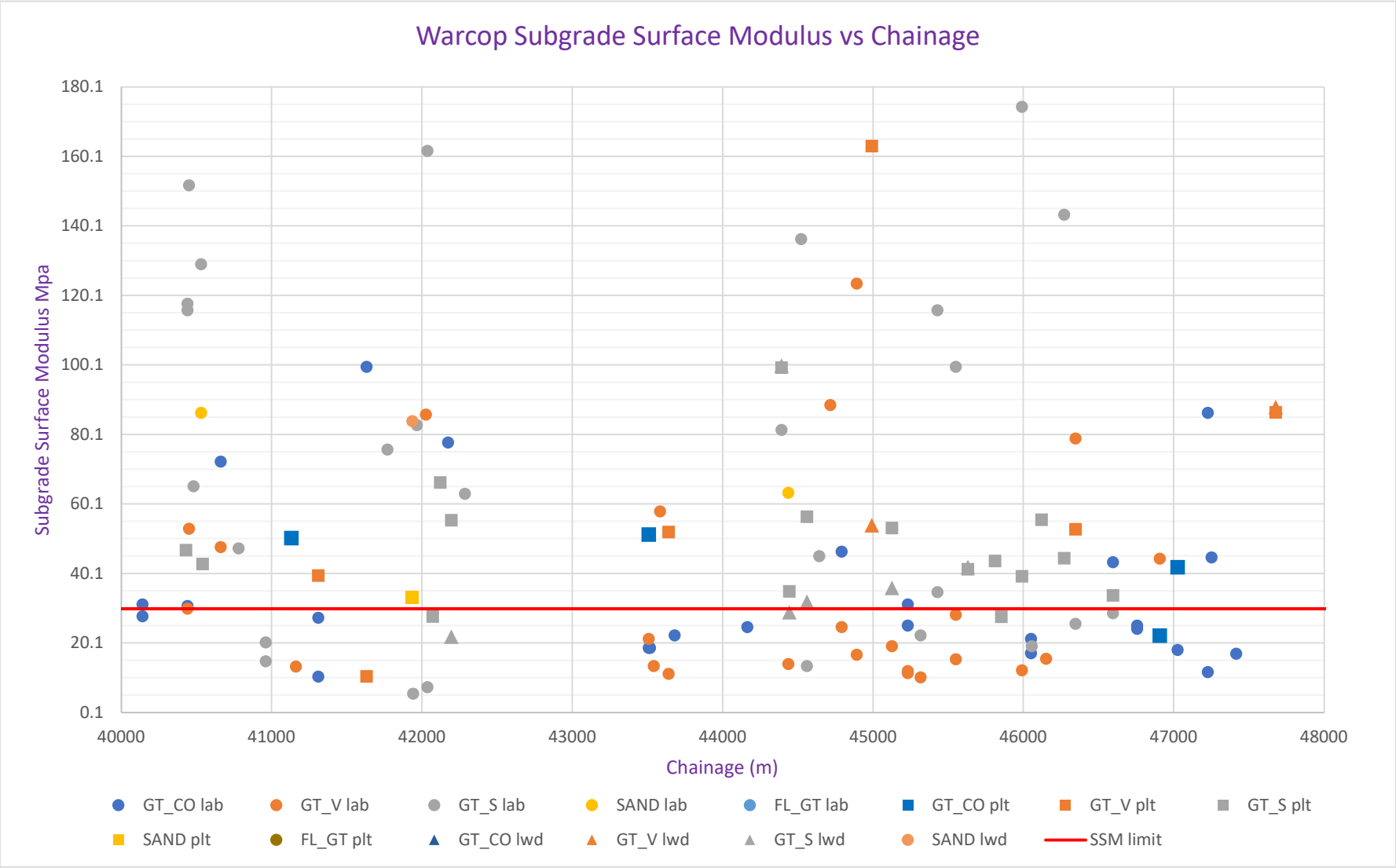
Technical Specifications

Frequency Range:	1 — 1000Hz (start taper at 1 Hz)
Full Drive Frequency:	8 — 400Hz
Force: S-wave:	1700N (400lbs)
P-wave:	1200N (270lbs)
Sweep Length:	Unlimited
Signal Penetration:	Approx. 200 m
Power supply:	48VDC battery / 230VAC power
Output:	Pilot, Weighted Sum Ground Force
Trigger:	Send/receive 0-5V rising edge

Lightning source in P (top) & S (bottom) wave configuration.

C Geotechnical Charts


Temple Sowerby to Appleby Subgrade Surface Modulus vs Chainage
Subgrade Surface Modulus Mpa
180.1
160.1
140.1
120.1
100.1
80.1
60.1
40.1
20.1
0.1
30000
31000
32000
33000
34000
35000
36000
37000
38000
Chainage (m)
GT_CO lab
GT_V lab
GT_S lab
SAND lab
FL_GT lab
GT_CO plt
GT_V plt
GT_S plt
SAND plt
FL_GT plt
GT_CO lwd
GT_V lwd
GT_S lwd
SAND lwd
SSM limit


Warcop Subgrade Surface Modulus vs Chainage
Subgrade Surface Modulus Mpa
180.1
160.1
140.1
120.1
100.1
80.1
60.1
40.1
20.1
0.1
40000
41000
42000
43000
44000
45000
46000
47000
48000
Chainage (m)
GT_CO lab
GT_V lab
GT_S lab
SAND lab
FL_GT lab
GT_CO plt
GT_V plt
GT_S plt
SAND plt
FL_GT plt
GT_CO lwd
GT_V lwd
GT_S lwd
SAND lwd
SSM limit

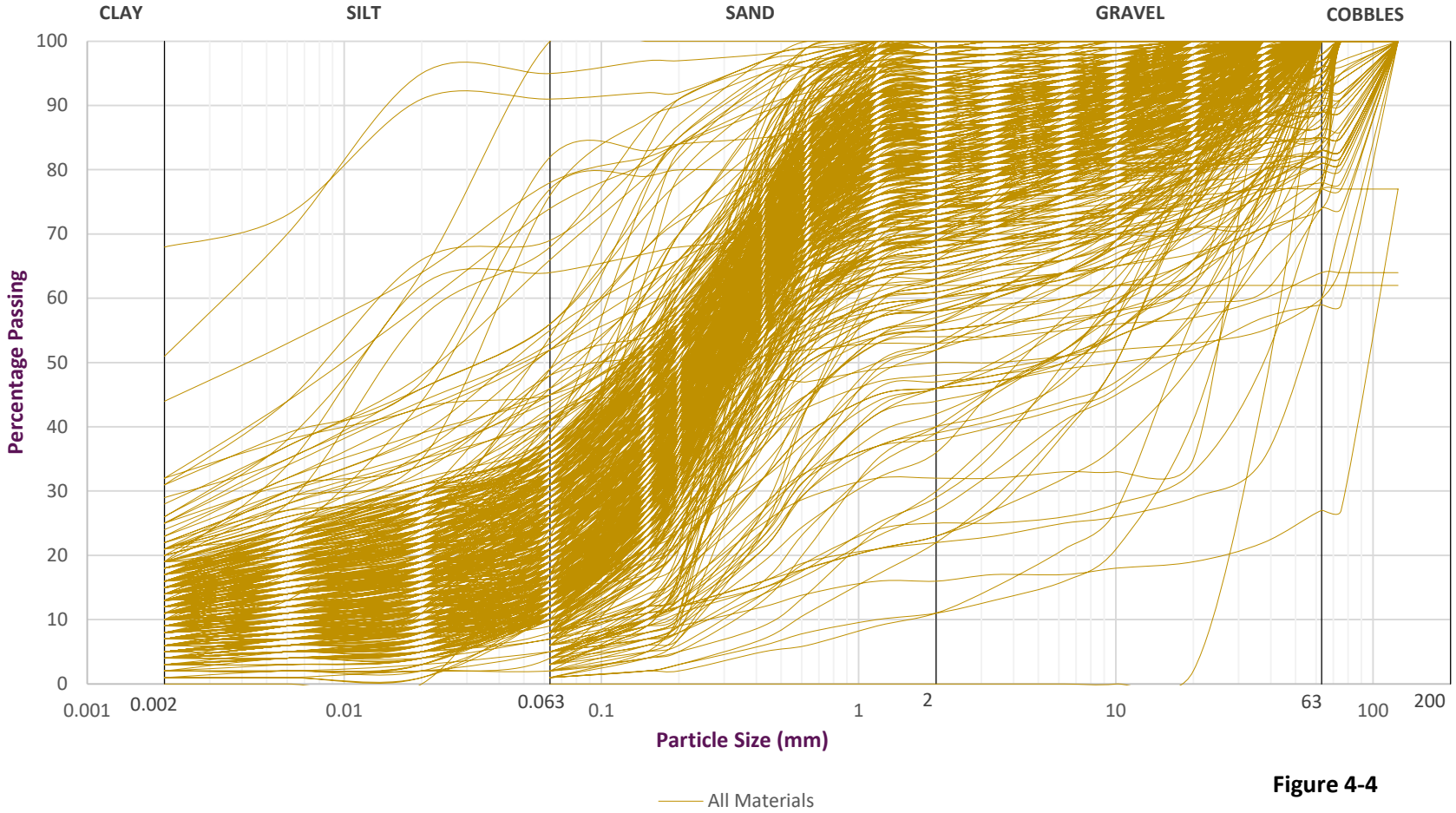

Temple Sowerby to Brough
Particle Size Distribution - All Materials
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
Particle Size (mm)
All Materials

Figure 4-4

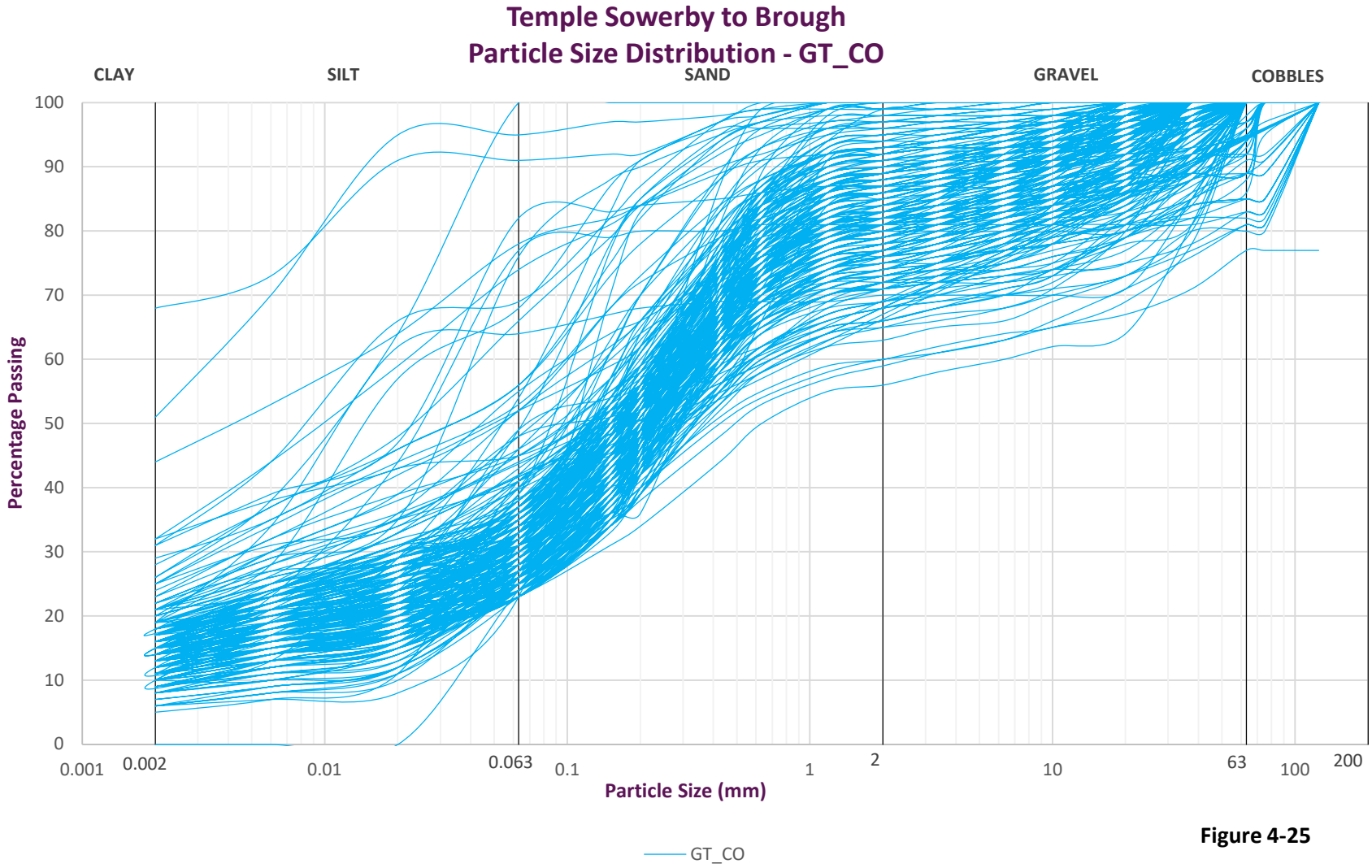

Temple Sowerby to Brough
Particle Size Distribution - GT_CO
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
Particle Size (mm)
GT_CO

Figure 4-25

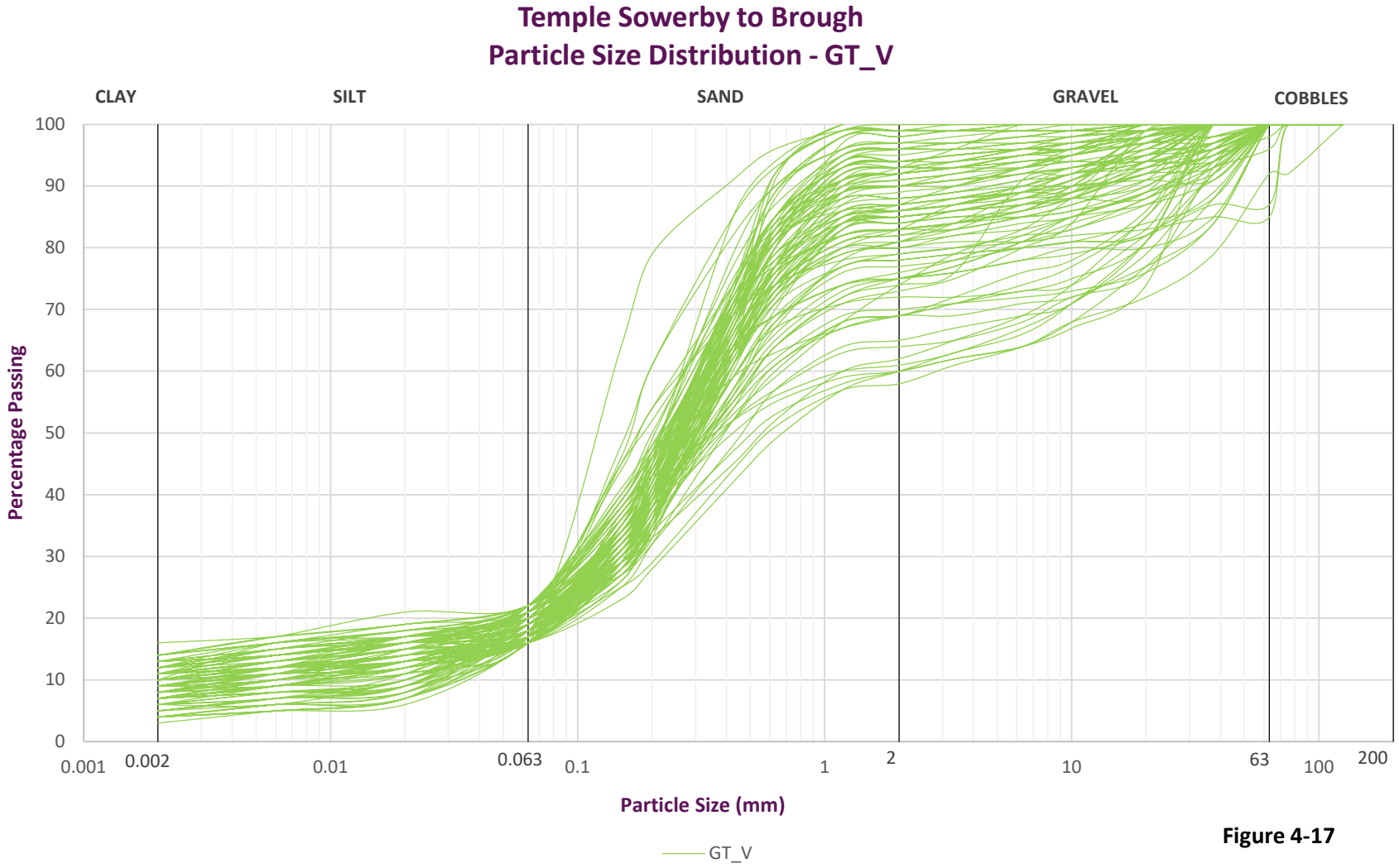

Temple Sowerby to Brough
Particle Size Distribution - GT_V
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
Particle Size (mm)
GT_V

Figure 4-17

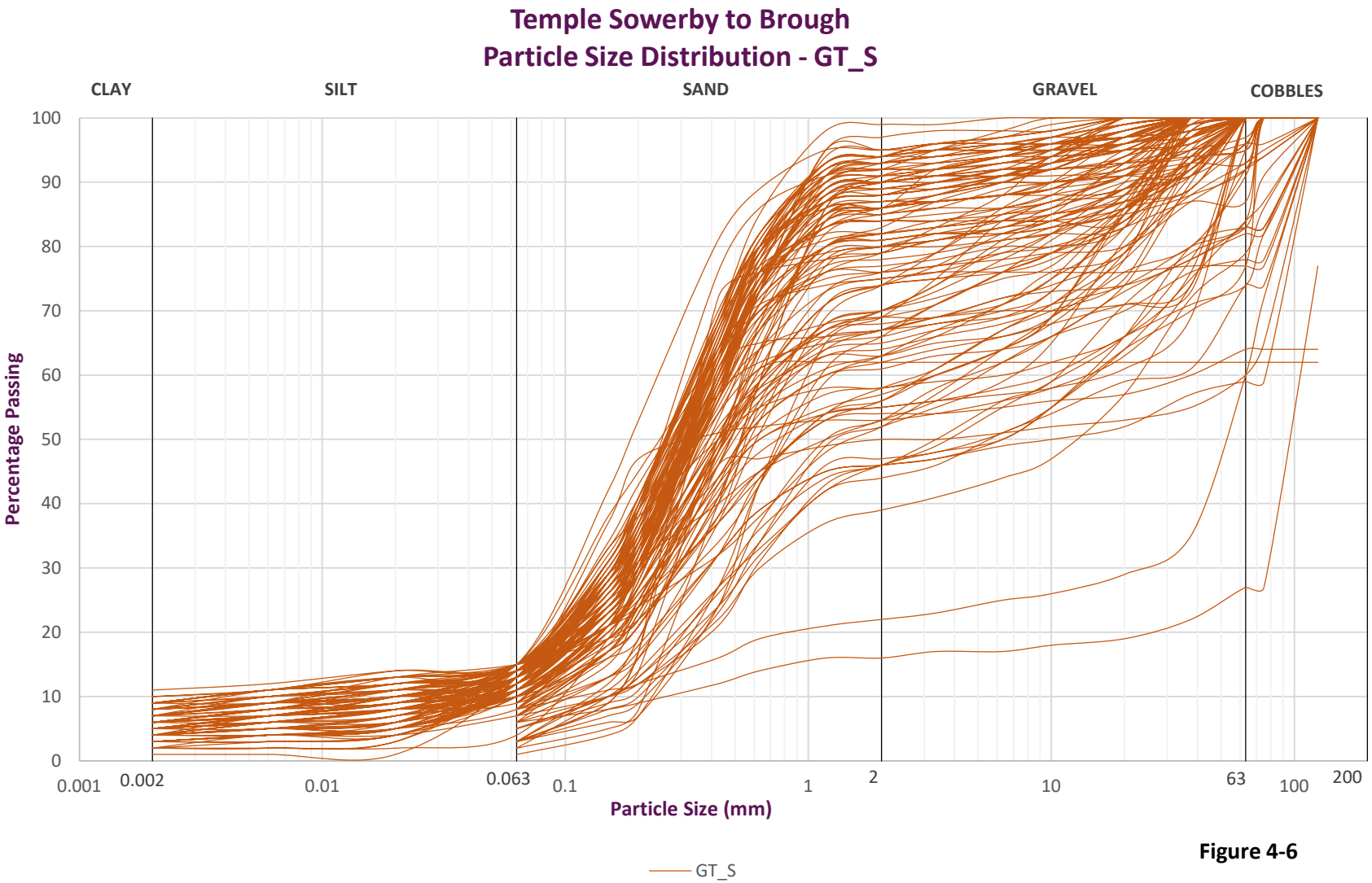

Temple Sowerby to Brough
Particle Size Distribution - GT_S
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
Particle Size (mm)
GT_S

Figure 4-6

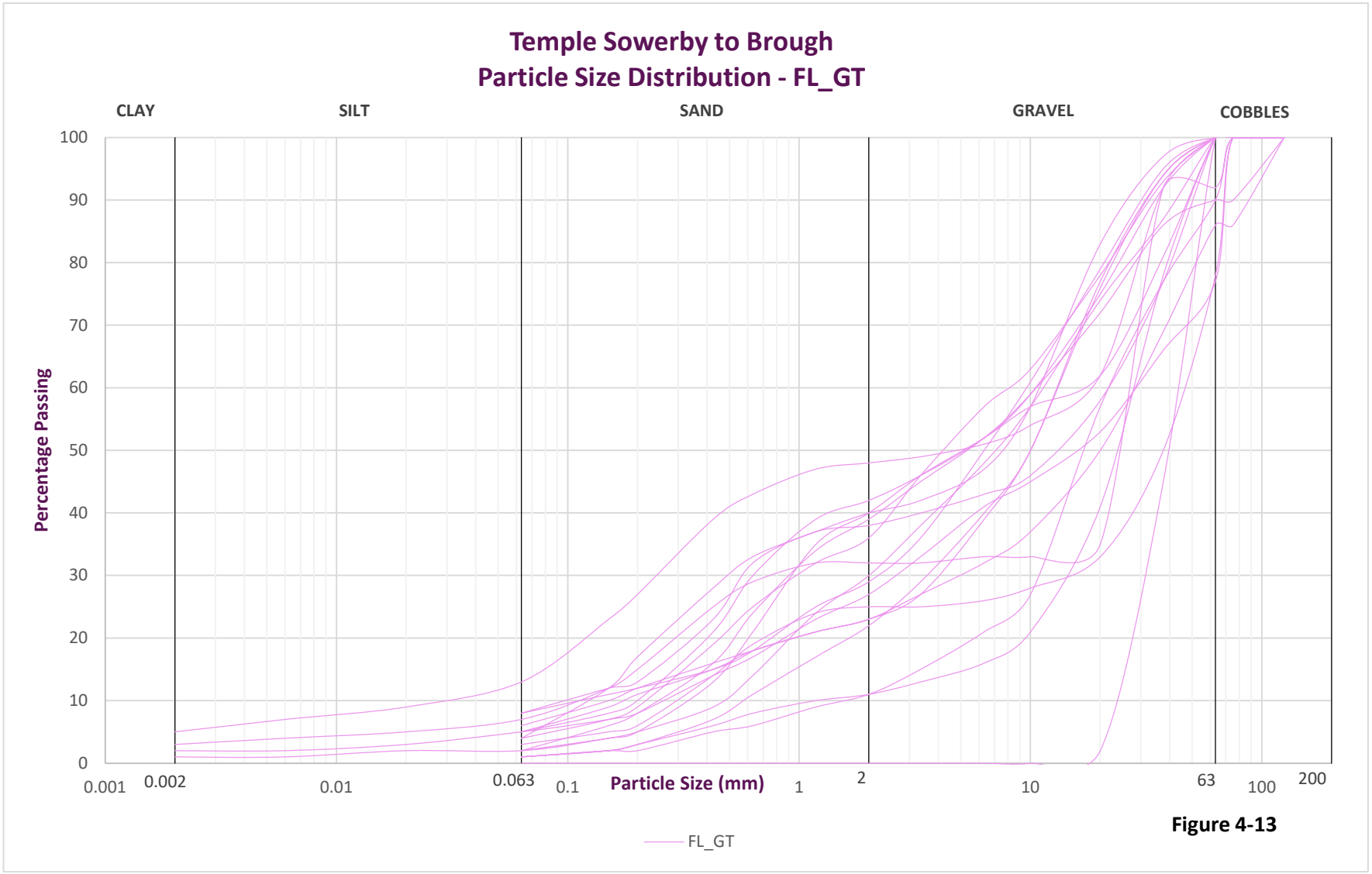

Temple Sowerby to Brough
Particle Size Distribution - FL_GT
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
Particle Size (mm)
1
2
10
63
100
200
FL_GT

Figure 4-13

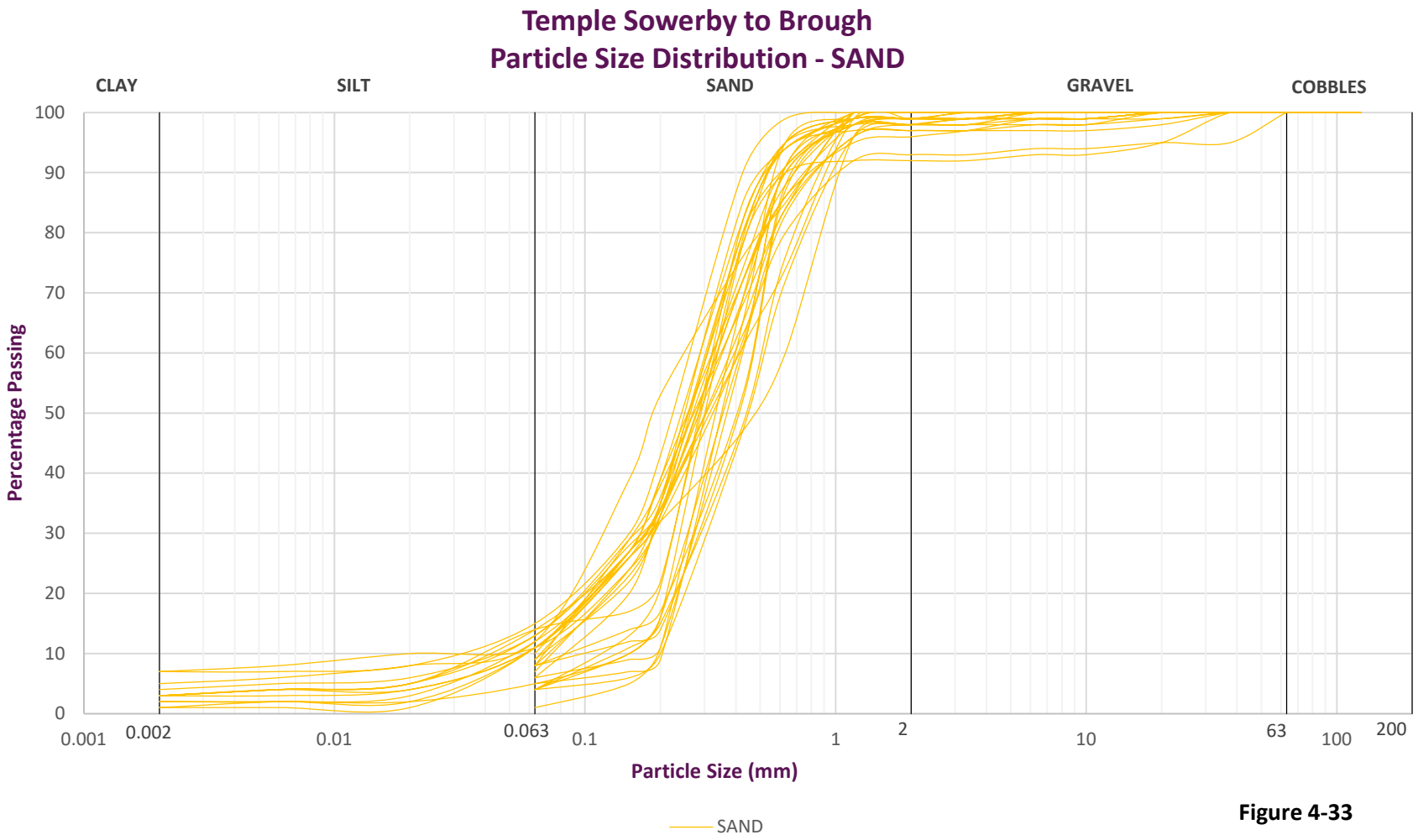

Temple Sowerby to Brough
Particle Size Distribution - SAND
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
Particle Size (mm)
SAND

Figure 4-33

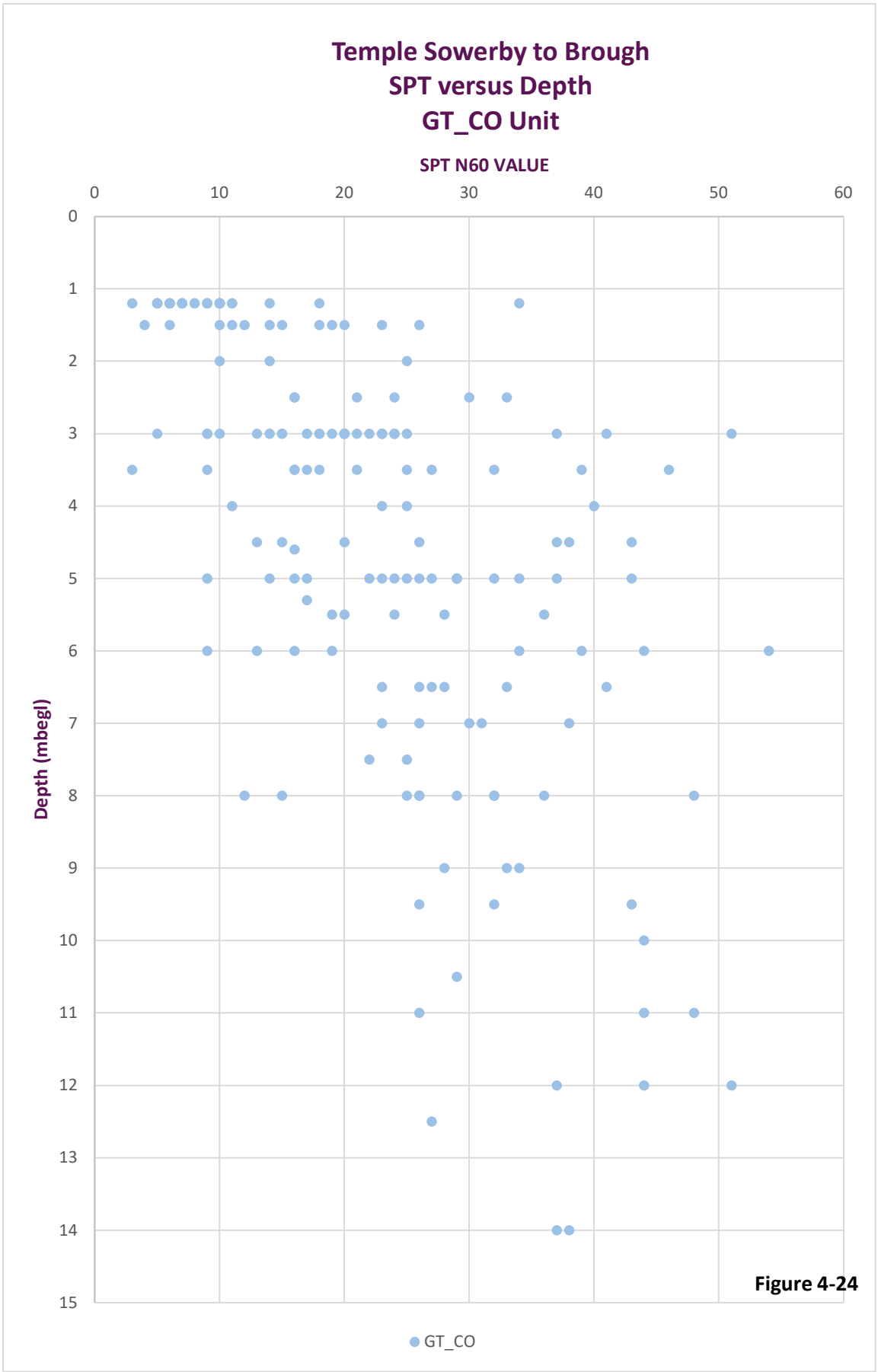

Temple Sowerby to Brough
SPT versus Depth
GT_CO Unit
SPT N60 VALUE
0
10
20
30
40
50
60
Depth (mbegl)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
GT_CO

Figure 4-24

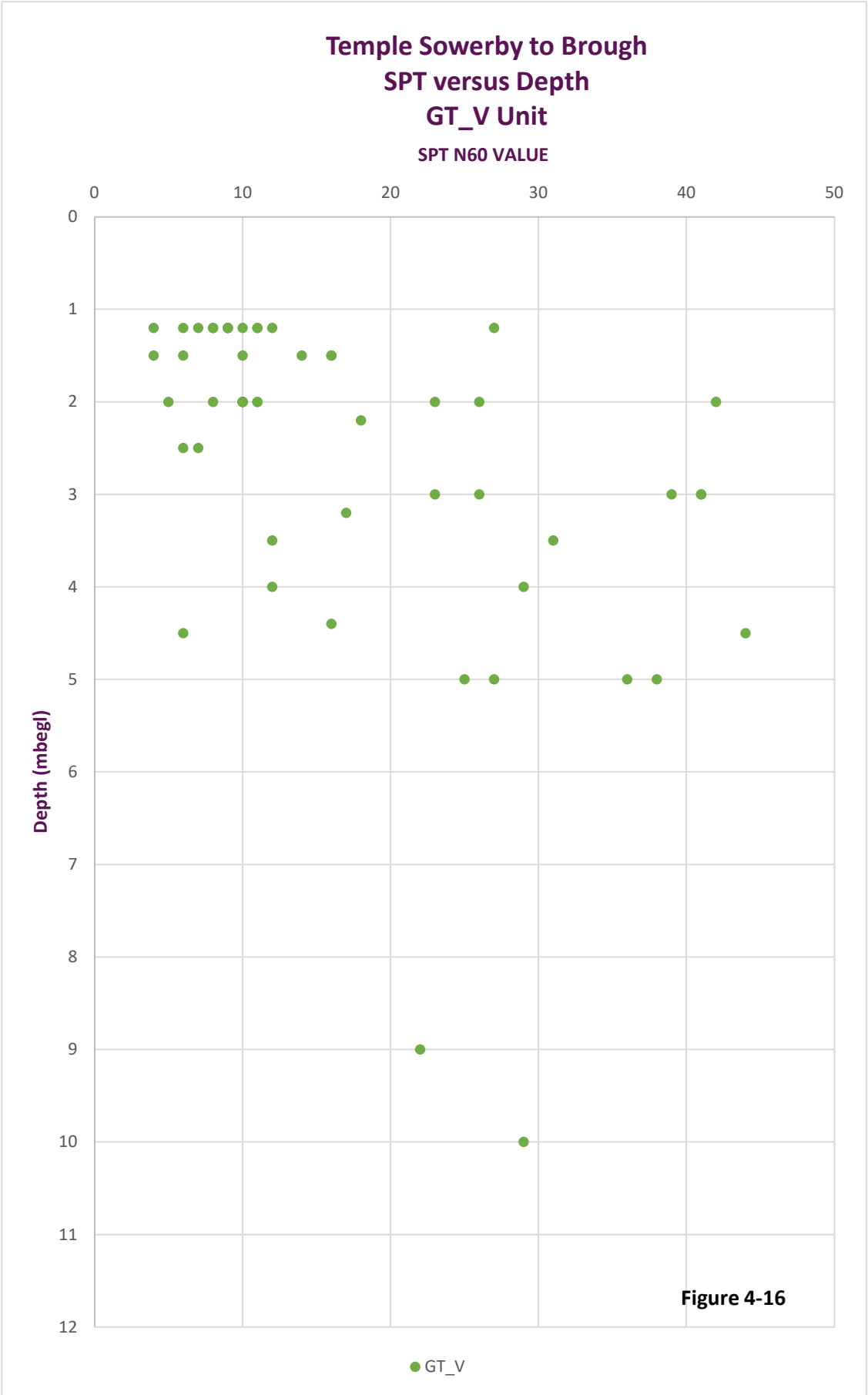

Temple Sowerby to Brough
SPT versus Depth
GT_V Unit
SPT N60 VALUE
0
10
20
30
40
50
Depth (mbegl)
0
1
2
3
4
5
6
7
8
9
10
11
12
GT_V

Figure 4-16

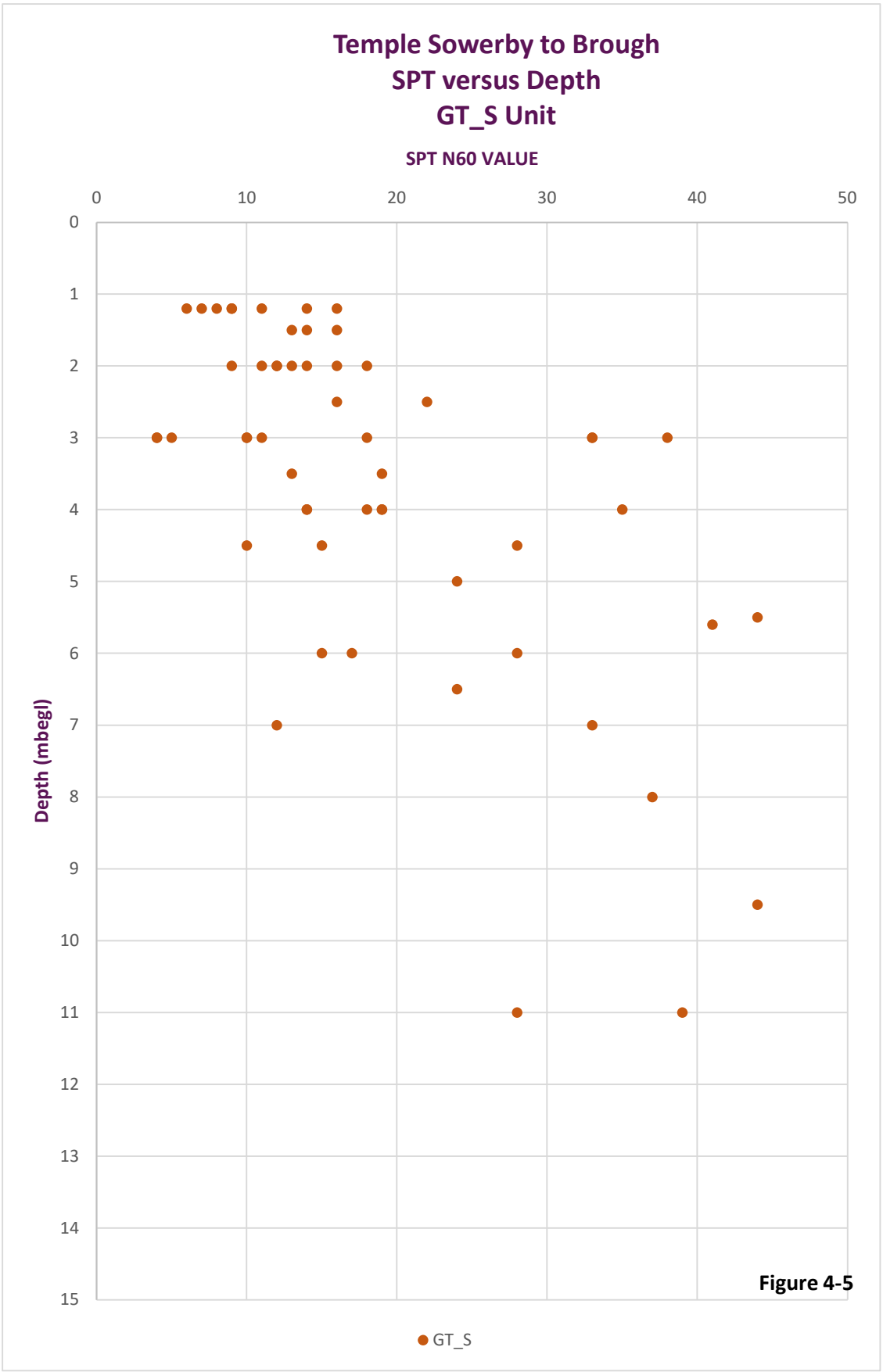

Temple Sowerby to Brough
SPT versus Depth
GT_S Unit
SPT N60 VALUE
0
10
20
30
40
50
Depth (mbegl)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
GT_S

Figure 4-5

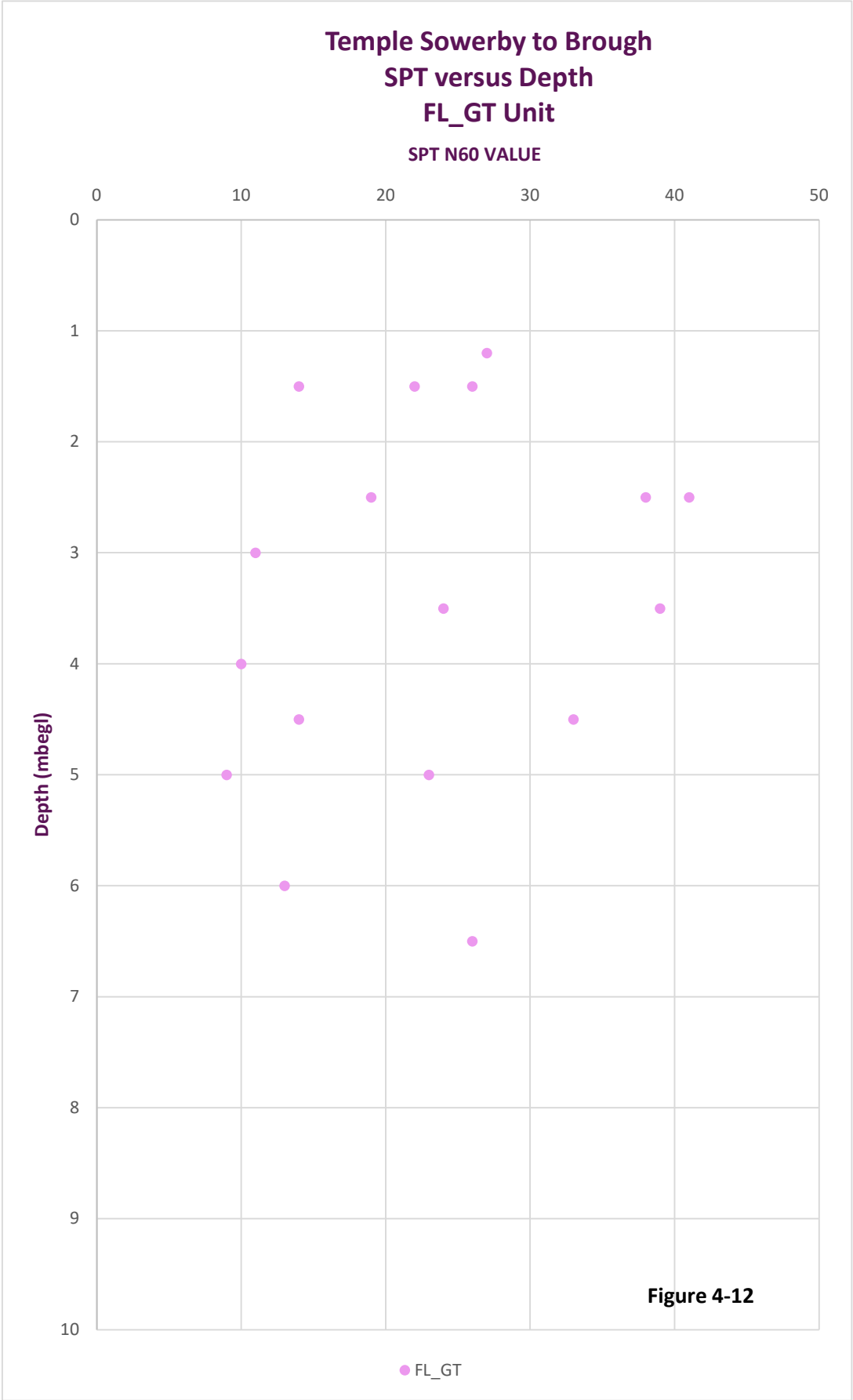

Temple Sowerby to Brough
SPT versus Depth
FL_GT Unit
SPT N60 VALUE
0
10
20
30
40
50
Depth (mbegl)
0
1
2
3
4
5
6
7
8
9
10
FL_GT

Figure 4-12

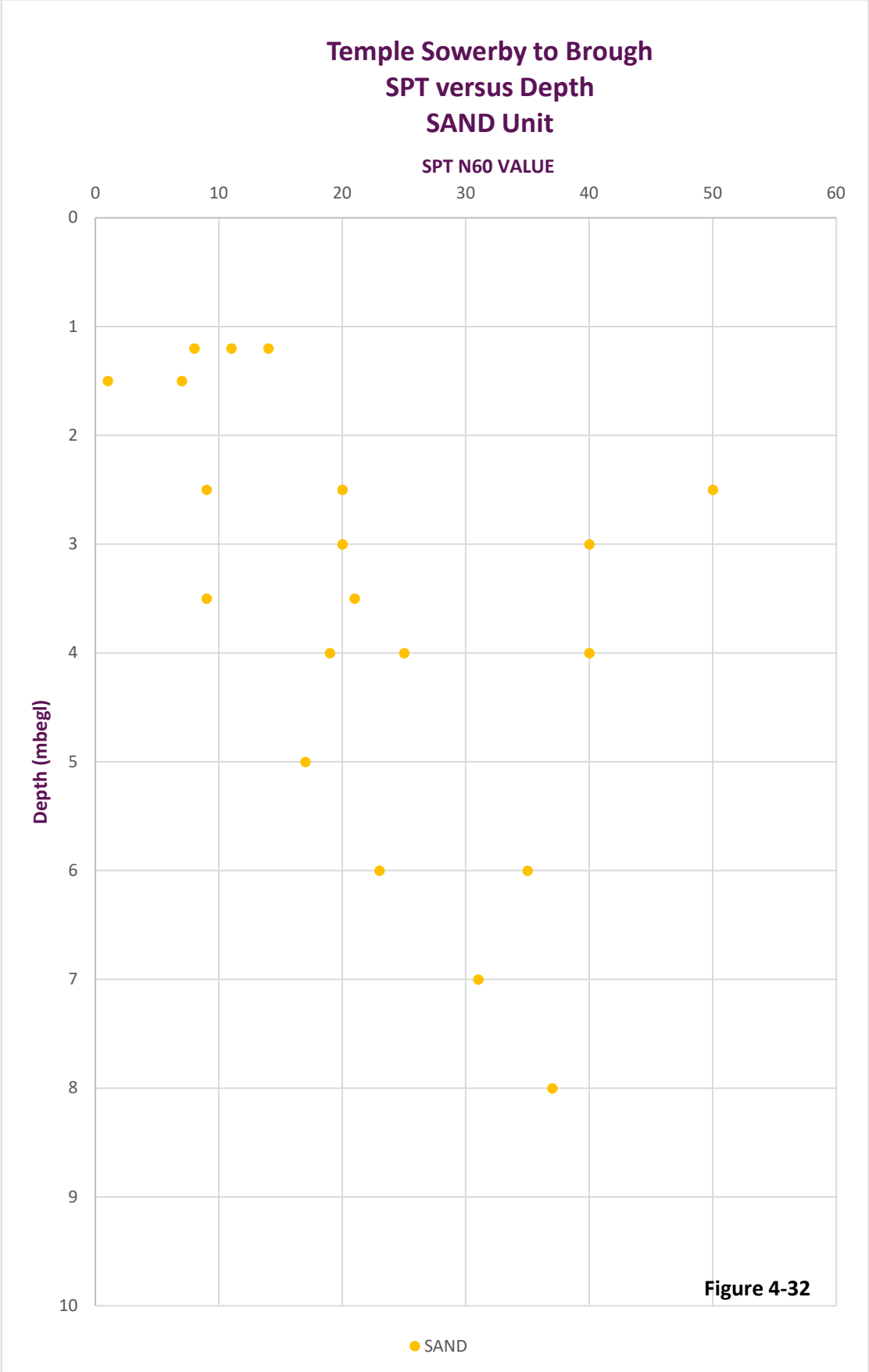

Temple Sowerby to Brough
SPT versus Depth
SAND Unit
SPT N60 VALUE
0
10
20
30
40
50
60
Depth (mbegl)
0
1
2
3
4
5
6
7
8
9
10
SAND

Figure 4-32

D Geo-environmental

D.1 Risk / Waste Assessment Methodologies & GACs

Subject **Human Health Risk Assessment Methodology**

Date 6 December 2021 Job No/Ref HE565627

The screening approach adopted by the A66 NTP Integrated Project Team is consistent with the "Tier 2 Generic Quantitative Risk Assessment" (GQRA) approach as detailed in the Land Contamination Risk Management (Environment Agency, 2020) framework guidance for the investigation of potentially contaminated land.

Potential risks to human health associated with soils encountered during the ground investigation have been assessed by screening the results of chemical testing against relevant Generic Assessment Criteria (GAC).

The screening approach identifies if there are potentially unacceptable risks to human receptors from exposure to soil contaminants, and whether there is a need for additional site-specific risk assessment or to undertake remedial action to mitigate risks should exceedances be identified.

GACs represent trigger values that may indicate a "Significant Possibility of Significant Harm" (SPOSH) to human health if contaminants exceed the level noted. Where soil concentration values are below the GACs and where the land use scenario selected is representative of, or conservative for the site being investigated, it can be assumed it is unlikely SPOSH exists, and remedial action would not be required to render a site fit for purpose.

When a GAC is exceeded it is not necessarily a sign the land is contaminated to an extent that the site is unsuitable for its current or intended use and requires remediation, however more consideration should be given to determine if it truly reflects a risk under a more site-specific land use. Further assessment may comprise Detailed Quantitative Risk Assessment (DQRA) which removes many of the generic (and therefore conservative) assumptions inherent in a GAC.

GACs are, for the most part (with the exception of cyanide) protective of chronic (i.e. long term, low dose) exposure rather than the effects of acute (i.e. short term, high dose) exposure. In general, GACs which are protective of chronic exposure are orders of magnitude lower than GACs which are protective of acute exposure.

Cyanide, however, is toxic by acute (oral) exposure and the cyanide GAC is protective of the acute exposure route.

Soil Samples have been screened against GACs selected from the following strict hierarchy:

- Category 4 Screening Levels (C4SLs) as coordinated by CL:AIRE on behalf of the Department for Environment, Food and Rural Affairs (DEFRA, 2014);
- LQM/CIEH Suitable 4 Use Levels (S4UL) (Land Quality Management, 2009) where published C4SLs are not available; or
- Atkins ATRISKsoil Soil Screening Values (SSVs) (Atkins, 2017).

The adopted assessment criteria have been developed under the UK approach to risk assessment and are fully compliant with parameters as specified in the Environment Agency's series of guidance documents. GACs have been developed for a number of 'standard' land uses.

We recognise Paragraph 10 of NG 601 [1] states

> *"For general fills, the limiting values for harm to human health should normally be based on the 'commercial/industrial' end use category of guideline values, as there is a very low risk of exposure to the public from any contaminants in the fill. For landscaping fills, considerations of phytotoxicity will be important. Where slopes are to be returned to agricultural use, the limiting values should be based on the 'allotments' end use. The appropriate category should be decided for each section or sub-section of the scheme".*

Following a review of the standard land use scenarios underpinning these models, we are of the opinion the "Public Open Space – Park" (POS_{Park}) land use, is considered to be a more appropriate and suitably precautionary land use scenario for the development under consideration (i.e. major highway scheme with associated earthworks, structures, road verge landscaping and ancillary features such as SUDs ponds etc) with regards to selection of critical receptor and behavioural exposure parameters.

However, for the reasons summarised below, we consider the POS_{Park} generic land use to be a suitably protective land use for risk assessment purposes scheme wide.

The Commercial land use scenario is based around a conceptual site model (CSM) that considers:

- a female adult critical receptor of working age (age class 17 - i.e. 16 - 65yr old);
- working in a principally indoor office setting with an exposure duration / frequency of 8.3 hrs per day for 230 days per year; and
- which includes *"indoor and outdoor dermal"* exposure pathway and crucially, the *"inhalation of indoor dust and indoor vapour*s" exposure pathways, which are a significant component for volatile organic contaminants.

The POS_{Park} land use is based around the following CSM:

- a female child critical receptor (age class 1 - 6 - i.e. 0 - 6yr old);
- in an outdoor park setting with an exposure duration / frequency of 2 hrs per day for 170 days per year;
- and exposure pathways are limited to *"direct soil and dust ingestion"*; *"outdoor dermal"* exposure, and *"inhalation of outdoor dust and outdoor vapours"*

[1] Manual Of Contract Documents For Highway Works Volume 2 Notes For Guidance On The Specification For Highway Works - Amendment – February 2016 - [redacted]

We consider the exposure duration and frequency of anyone present within the bounds of the highways scheme to be considerably less than the modelled duration and frequency of the standard land uses (either commercial or $POS_{(Park)}$), which add an additional level of conservatism to the assessment. We also consider the use of the "Allotments" land use to be overly precautionary in relation to a proposed roadside verge land use in an agricultural land setting, as the main risk driver being the stringent "Allotments" land use GAC is the behavioural characteristics of allotment owners, whose diet is modelled as consuming a large quantity of homegrown produce from a particular (small) plot of soil. This is not the case in general agricultural land, whereby the general population is unlikely to consume a measurable quantity of food sourced from a particular plot of land, and therefore the likelihood of scheme derived soil contamination making an appreciable component of a person's diet is considered to be negligible.

Organic contamination can be bound to organic matter within soils, which reduces the mobility and availability of organic contaminants to the environment. The more organic matter present, the less mobile organic contaminants are.

A low Soil Organic Matter (SOM) value of 1% is considered to be conservative for the purposes of the assessment and has been selected when selecting GACs.

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D1 - Human Health GAC

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D1 - Human Health GAC
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000002

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P01	S1	Fit for Co-ordination		First Issue		
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	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Substance	C4SL (mg/kg)	CLAIRE C4SL	CIEH / LQM S4UL (mg/kg)	Atkins AtRisk 2017 (mg/kg)	Saturation limit	Source	Selected GAC (mg/kg)	Saturation Limits	Source
Metals									
Arsenic	170		170	168			170		C4SL
Antimony				3090			3090		Atkins Atrisk
Barium				5770			5770		Atkins Atrisk
Beryllium			63	2.19			63		LQM S4UL
Boron			46000				46000		LQM S4UL
Cadmium	880		532	882			880		C4SL
Chromium III			33000	83500			33000		LQM S4UL
Chromium V	250		220	251			250		C4SL
Copper			44000	45200			44000		LQM S4UL
Lead	1300			1340			1300		C4SL
Elemental mercury			30	61.2	25.8	LQM S4UL	30	25.8	LQM S4UL
Inorganic mercury			240	1110			240		LQM S4UL
Methylmercury			68	94.3	66.4	Atkins	68		LQM S4UL
Molybdenum				2880			2880		Atkins Atrisk
Nickel			3400	804			3400		LQM S4UL
Selenium			1800	2550			1800		LQM S4UL
Vanadium			5000	1550			5000		LQM S4UL
Zinc			170000	201000			170000		LQM S4UL
BTEX									
Benzene	230		90	139			90		LQM S4UL
Toluene			87000	69900	869	LQM S4UL	87000	869	LQM S4UL
Ethylbenzene			17000	21400	518	LQM S4UL	17000	518	LQM S4UL
O-xylene			17000	9560	478	LQM S4UL	17000	478	LQM S4UL
M-xylene			17000	9270	625	LQM S4UL	17000	625	LQM S4UL
P-xylene			17000	9100	576	LQM S4UL	17000	576	LQM S4UL
Methyl tert-butyl ether				70800	17427	Atkins	70800	17427	Atkins Atrisk
Petroleum hydrocarbon fractions									
Aliphatic EC 5-6			95000	109000	304	LQM S4UL	95000	304	LQM S4UL
Aliphatic EC 6-8			150000	163000	144	LQM S4UL	150000	144	LQM S4UL
Aliphatic EC 8-10			14000	9720	78	LQM S4UL	14000	78	LQM S4UL
Aliphatic EC 10-12			21000	17700	48	LQM S4UL	21000	48	LQM S4UL
Aliphatic EC 12-16			25000	23800	24	LQM S4UL	25000	24	LQM S4UL
Aliphatic EC 16-35			450000	864000			450000		LQM S4UL
Aliphatic EC 35-44			450000				450000		LQM S4UL
Aromatic EC 5-7			76000	139	1220	LQM S4UL	76000	1220	LQM S4UL
Aromatic EC 7-8			87000	69900	869	LQM S4UL	87000	869	LQM S4UL
Aromatic EC 8-10			7200	5140	613	LQM S4UL	7200	613	LQM S4UL
Aromatic EC 10-12			9200	8260	364	LQM S4UL	9200	364	LQM S4UL
Aromatic EC 12-16			10000	10600			10000		LQM S4UL
Aromatic EC 16-21			7600	7870			7600		LQM S4UL
Aromatic EC 21-35			7800	7870			7800		LQM S4UL
Aromatic EC 35-44			7800				7800		LQM S4UL
Aliphatic and aromatic 44-70			7800				7800		LQM S4UL
Polycyclic aromatic hydrocarbons									
Acenaphthene			29000	28600			29000		LQM S4UL
Acenaphthylene			29000				29000		LQM S4UL
Anthracene			150000	150000			150000		LQM S4UL
Benz[a]anthracene			49				49		LQM S4UL
Benzo[a]pyrene	21		11	21.4			11		LQM S4UL
Benzo[b]fluoranthene			13				13		LQM S4UL
Benzo[ghi]perylene			1400				1400		LQM S4UL
Benzo[k]fluoranthene			370				370		LQM S4UL
Chrysene			93				93		LQM S4UL
Dibenz[ah]anthracene			1.1				1.1		LQM S4UL
Fluoranthene			6300	20200			6300		LQM S4UL
Fluorene			20000	19600			20000		LQM S4UL
Indeno[123-cd]pyrene			150				150		LQM S4UL
Naphthalene			1200	623	76.4	LQM S4UL	1200	76.4	LQM S4UL
Phenanthrene			6200				6200		LQM S4UL
Pyrene			15000	15100			15000		LQM S4UL
Coal tar (bap as surrogate marker)			4.4				4.4		LQM S4UL
Chloroalkanes and alkenes									
1,2-Dichloroethane			21	37.9			21		LQM S4UL
1,1,1-Trichloroethane			57000	34900	1425	LQM S4UL	57000	1425	LQM S4UL
1,1,2,2-Tetrachloroethane			1800	4640	2464	Atkins	1800		LQM S4UL
1,1,1,2-Tetrachloroethane			1500	3490	2823	Atkins	1500		LQM S4UL
1,1,1,2 Tetrachloroethene		1400	810	3060	424	C4SL	1400	424	CL:AIRE C4SL
Tetrachloromethane			190	915			190		LQM S4UL
Trichloroethene		41	70	11			41		CL:AIRE C4SL
Trichloromethane			2600	2090			2600		LQM S4UL
Chloroethane				82400	2437	Atkins	82400	2437	Atkins Atrisk
Chloroethene / Vinyl Chloride		18	4.8	3.68			18		CL:AIRE C4SL
1,1,2-Trichloroethane				766			766		Atkins Atrisk
1,1-Dichloroethane				11200	1620	Atkins	11200	1620	Atkins Atrisk
1,1-Dichloroethene				1950			1950		Atkins Atrisk
Chloromethane				73.8			73.8		Atkins Atrisk
Cis-1,2-dichloroethene				389			389		Atkins Atrisk
Dichloromethane				1430			1430		Atkins Atrisk
Trans-1,2-dichloroethene				918			918		Atkins Atrisk
Biphenyl				14900	34	Atkins	14900	34	Atkins Atrisk
Bis (2-ethylhexyl) phthalate				16600			16600		Atkins Atrisk
Bromobenzene				986	827	Atkins	986	827	Atkins Atrisk
Bromodichloromethane				33.9			33.9		Atkins Atrisk
Bromoform				2910	2480	Atkins	2910	2480	Atkins Atrisk
Butyl benzyl phthalate				257000			257000		Atkins Atrisk
Diethyl phthalate				85800	12.8	Atkins	85800	12.8	Atkins Atrisk
Di-n-butyl phthalate				2620			2620		Atkins Atrisk
Di-n-octyl phthalate				20000			20000		Atkins Atrisk
1,2,4-Trimethylbenzene				225			225		Atkins Atrisk
1,2-Dichloropropane				79.6			79.6		Atkins Atrisk
2,4-Dichloro-o-cresol				14200			14200		Atkins Atrisk
2,4-Dimethylphenol				8740	1327	Atkins	8740	1327	Atkins Atrisk
2,4-Dinitrotoluene				973			973		Atkins Atrisk
2,6-bis(1,1-dimethyl)-4-(1-methylpropyl)-pheno				576			576		Atkins Atrisk
2,6-Dinitrotoluene				489			489		Atkins Atrisk
2-Chloronaphthalene				659	112	Atkins	659	112	Atkins Atrisk
Styrene				5640	604	Atkins	5640	604	Atkins Atrisk
Propylbenzene				27500	399	Atkins	27500	399	Atkins Atrisk
Iso-propylbenzene				14800	387	Atkins	14800	387	Atkins Atrisk
Formadlehyde				218			218		Atkins Atrisk
Dibromochloromethane				231			231		Atkins Atrisk
Trichloromethylbenzene				0.199			0.199		Atkins Atrisk
Hexachloroethane				115	8.13	Atkins	115	8.13	Atkins Atrisk
Explosives									
2,4,6-Trinitrotoluene			260				260		LQM S4UL
RDX			49000		18.7	LQM S4UL	49000	18.7	LQM S4UL
HMX			23000		0.35	LQM S4UL	23000	0.35	LQM S4UL
Pesticides									
Aldrin			30				30		LQM S4UL
Dieldrin			30				30		LQM S4UL
Atrazine			2300				2300		LQM S4UL
Dichlorvos			26				26		LQM S4UL
alpha - Endosulfan			2400				2400		LQM S4UL
beta - Endosulfan			2400				2400		LQM S4UL
alpha - Hexachlorocyclohexane			47				47		LQM S4UL
beta - Hexachlorocyclohexane			15				15		LQM S4UL
gamma - Hexachlorocyclohexane			14				14		LQM S4UL
DDD				212			212		Atkins Atrisk
Dinoseb				45.4			45.4		Atkins Atrisk
Nicotine				173			173		Atkins Atrisk
Prochloraz				2300			2300		Atkins Atrisk
Chlorobenzenes									
Chlorobenzene			1300	13200	675	LQM S4UL	1300	675	LQM S4UL
1,2-Dichlorobenzene			24000		571	LQM S4UL	24000	571	LQM S4UL
1,3-Dichlorobenzene			390				390		LQM S4UL
1,4-Dichlorobenzene			36000		224	LQM S4UL	36000	224	LQM S4UL
1,2,3-Trichlorobenzene			770		134	LQM S4UL	770	134	LQM S4UL
1,2,4-Trichlorobenzene			1700		318	LQM S4UL	1700	318	LQM S4UL
1,3,5-Trichlorobenzene			380		36.7	LQM S4UL	380	36.7	LQM S4UL
1,2,3,4-Tetrachlorobenzene			1500		122	LQM S4UL	1500	122	LQM S4UL
1,2,3,5-Tetrachlorobenzene			110		39	LQM S4UL	110	39	LQM S4UL
1,2,4,5-Tetrachlorobenzene			25				25		LQM S4UL
Pentachlorobenzene			190				190		LQM S4UL
Hexachlorobenzene			30				30		LQM S4UL
Phenol and chlorophenols									
Phenol			760	685			760		LQM S4UL
Chlorophenols			1100				1100		LQM S4UL
Pentachlorophenol			110				110		LQM S4UL
2-Methylphenol				48700			48700		Atkins Atrisk
3-Methylphenol				48700			48700		Atkins Atrisk
4-Methylphenol				48100			48100		Atkins Atrisk
Other									
Carbon disulphide			1300	1920			1300		LQM S4UL
Hexachlorobutadiene			48				48		LQM S4UL
Cyanide (free)				34			34		Atkins Atrisk
Tributyl tin oxide				46.2			46.2		Atkins Atrisk
Other Organics									
Total PCDDs, PCDFs and dioxin-like PCBs				0.049			0.049		Atkins Atrisk

Subject **Controlled Waters Risk Assessment – Methodology**

Date 6 December 2021 Job No/Ref HE565627

A tiered approach has been developed to assess leachate, groundwater and surface water samples recovered from the ground investigation.

An assessment of the risk to controlled waters (groundwater resource and surface waters) has been undertaken in line with the Groundwater Protection Guidance (Environment Agency, 2017). The document outlines basic concepts and principles of management, monitoring and risk assessment for groundwater with respect to protecting the quality and quantity of groundwater in accordance with the Water Framework Directive (2000/60/EC).

Due to the linear nature of the scheme, the spatial distribution of the sample locations and the limited amount of groundwater, leachate and surface water analytical data, it is not appropriate to infer correlations between sampling locations and each sample has been assessed as a discrete data point.

Water samples recovered as part of this ground investigation comprise a baseline survey of groundwater and surface waters prior to construction activities, and therefore substances failing Tier 1 (T1) or Tier 2 (T2 DWS or T2 EQS) assessment will be reported factually for information only.

Tier 1 Assessment (T1)

Groundwater, leachate and surface water samples have been subject to an initial conservative Tier 1 (T1) controlled waters assessment. This has utilised the lower of the UK Drinking Water Standards (DWS) (UK Statutory Instruments, 2016) or Environmental Quality Standards (EQS) (Scottish Environment Protection Agency (SEPA), 2020), following the process outlined below:

- Use the lowest of DWS or EQS
- Hierarchy of formal DWS as follows:
  - UK/EU DWS
  - WHO DWS
  - USEPA DWS
- Hierarchy of EQS as follows:
  - Use MAC (Maximum Allowable Concentration)
  - If no MAC use AA (Annual Average)
  - If no DWS or EQS is available use the LOD (Limit of Detection)

However there are a number of substances for which there is no relevant Water Quality Standard (WQS). For these substances without a formal WQS, a substance specific decision has been made to either adopt the LoD as a conservative WQS, or to not assign a WQS and report the data for information only.

Tier 1 (T1) Water Quality Standards (WQS) are summarised in APPX X "Tier 1 WQS Screen".

Locations where exceedances of T1 WQS have been identified are reviewed to determine whether it is possible to exclude the DWS or EQS receptors from the T1 assessment (e.g. due to sample type / proximity to surface water etc). If it is possible to exclude the DWS or EQS receptor, the T1 exceedances can progress to a more relevant T2 (DWS) or T2 (EQS) assessment.

T1 exceedances identified at locations where DWS and EQS are both considered relevant are unable to progress to a T2 CWRA.

Tier 2 Assessment (T2)

The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point. (e.g. a groundwater sample, distal to a surface water receptor would be assessed against Drinking Water Standards (DWS) only to protect groundwater drinking water resources, and a surface water sample would be assessed against EQS only).

The assessment point (AP) is also important.

- For Drinking Water protection, the AP is at the abstraction point / consumer tap;
- For Groundwater resource protection, the AP is 50m downgradient of the source; and
- For Surface Water protection, the AP is in the Surface Water, after Dilution.

Tier 2 Groundwater Resource Protection Assessment (T2 DWS)

For substances that exceed the Tier 1 (T1) assessment at locations where only groundwater resource protection is considered relevant, a Tier 2 Groundwater Resource Protection Assessment (T2 DWS) has been undertaken with the following rules applied:

- Hierarchy of formal DWS as follows:
  - UK/EU DWS
  - WHO DWS
  - USEPA DWS
- For Hazardous Substances:
  - use formal DWS if available.
  - If no formal DWS available, Use MRL / LoD.

- For Non Hazardous Substances,
    - use formal DWS if available.
    - if no formal DWS available, do not evaluate / no assessment is required.

Tier 2 Groundwater Resource Protection Assessment (T2 DWS) water quality standards are summarised in APPX X “Tier 2 DWS Screen”.

Tier 2 Surface Water Assessment (T2 EQS)

For substances that exceed the Tier 1 (T1) assessment at locations where only surface water protection is considered relevant, a Tier 2 Surface Water Assessment (T2 EQS) has been undertaken with the following rules applied:

- if EQS are available, use EQS
    - Hierarchy of EQS as follows:
        - use MAC (Maximum Allowable Concentration)
        - If no MAC, use AA (Annual Average)
        - For Copper, Manganese and Zinc, consider using bioavailability corrections (M-BAT) tool;
- if no EQS is available,
    - consider developing Predicted No-Effect concentration (PNEC) or
    - alternatively, consider MRL / LOD

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D1 - Water Quality Standards

Temple Sowerby to Appleby

Document Verification	
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Document Title	Geo-Env - WP A - Appx D1 - Water Quality Standards
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P01	S1	Fit for Co-ordination		First Issue		
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Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Tier 1 Screen

Notes

1 T1 - use Lowest of DWS or EQS.

2 T1 - If no DWS or EQS is available, use LOD

3 T1 - Hierarchy of Formal DWS are 1 - UK/EU DWS, 2 - WHO DWS. 3 - USEPA DWS

4 TI - Hierarchy of EQS - use MAC. If no MAC, use AA

Data sources		
UK DWS	The Water Supply (Water Quality) Regulations 2016	https://www.legislation.gov.uk/uksi/2016/614/contents
	The Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996	https://www.legislation.gov.uk/uksi/1996/3001/contents/made
EU DWS	Directive (EU) 2020/2184 - quality of water intended for human consumption	https://eur-lex.europa.eu/eli/dir/2020/2184/oj
WHO	Guidelines for Drinking-water Quality FOURTH EDITION Incorporating the first Addendum	https://www.who.int/publications/i/item/9789241549950
	Petroleum Products In Drinking-water - Background document for development of WHO Guidelines for Drinking-water Quality	https://www.who.int/water_sanitation_health/dwq/chemicals/petroleumproducts_1add_june2008.pdf
USEPA	USEPA National Primary Drinking Water Regulations	https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
JAGDAG	Groundwater hazardous substances standards	http://wfduk.org/resources/groundwater-hazardous-substances-standards
EQS	SEPA Supporting Guidance (WAT-SG-53) Environmental Quality Standards and Standards for Discharges to Surface Waters (v7.1 - April 2000)	https://www.sepa.org.uk/media/152957/wat-sg-53-environmental-quality-standards-for-discharges-to-surface-waters.pdf

Substance	Units	LOD ug/l)	Haz / Non Haz?	Groundwater Assessment Criteria				Surface Water Assessment Criteria	Alternative (ug/l)	Source	Proposed Tier 1 WQS (ug/l)	Source	Comment
				UK DWS	EU DWS	WHO DWS	USEPA DWS	water MAC EQS (					
Misc													
pH (w)	pH	0.01	-	>6.5 x <9.5	>6.5 x <9.5	-	-	-	not required		>6.5 x <9.5	UK DWS	
Electrical conductivity @ 20degC (w)	µs/cm	10	-	2500	2500	-	-	-	not required		2500	UK DWS	
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	5	-	-	-	-	-	-	none proposed		No screening value		
Hardness Total	mg/l Ca CO3	1	-	-	-	-	-	-	none proposed		No screening value		**Informative only** Class 1: < 40 mg CaCO3/l Class 2: 40 to < 50 mg CaCO3/l Class 3: 50 to < 100 mg CaCO3/l Class 4: 100 to < 200 mg CaCO3/l Class 5: ≥ 200 mg CaCO3/l
COD (settled)	mg/l	20	-	-	-	-	-	-	none proposed		No screening value		
BOD (settled, 5 day)	mg/l	2	-	-	-	-	-	-	none proposed		No screening value		
Total Suspended Solids (w)	mg/l	10	-	-	-	-	-	-	none proposed		No screening value		
Ammoniacal nitrogen as N (w)	mg/l	0.02	-	0.5	0.5	-	-	0.04	not required		0.04	EQS	
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	0.000036	-	-	-	-	-	-	none proposed		No screening value		
Chloride (w)	mg/l	1	Not Determined	250	250	250	-	250	not required		250	UK DWS	
Nitrite (w)	mg/l	0.1	Not Determined	0.5	0.5	3	1	-	not required		0.5	UK DWS	
Nitrate (w)	mg/l	0.1	Not Determined	50	50	50	10	-	not required		50	UK DWS	
Sulphate (w)	mg/l	1	Not Determined	250	250	500	-	400	not required		250	UK DWS	
Sulphide (w)	mg/l	0.1	Not Determined	-	-	-	-	-	none proposed		No screening value		
DOC (w)	mg/l	0.2	-	-	-	-	-	-	none proposed		No screening value		
Metals													
Arsenic (dissolved)	µg/l	1	Hazardous Substance	10	10	10	10	50	not required		10	UK DWS	
Boron (dissolved)	µg/l	10	Non Hazardous Pollutant	1000	1500	2400	-	2000	not required		1000	UK DWS	
Cadmium (dissolved)	µg/l	0.2	Non Hazardous Pollutant	5	5	3	5	≤0.45 (class 1) 0.45 (class 2) 0.6 (class 3) 0.9 (class 4) 1.5 class 5)	not required		0.45	EQS	Hardness dependant
Calcium (dissolved)	mg/l	1	Not Determined	-	-	-	-	-	none proposed		No screening value		
Copper (dissolved)	µg/l	1	Non Hazardous Pollutant	2000	2000	2000	1300	1*	not required		1	EQS	*Consider Bioavailbility (M-BAT tool)
Chromium (dissolved)	µg/l	1	Hazardous Substance	50	50	50	-	-	not required		50	UK DWS	
Chromium (hexavalent) (w)	mg/l	0.01	Hazardous Substance	50	50	50	100	3.4	not required		3.4	EQS	
Chromium (trivalent) (w)	mg/l	0.01	Hazardous Substance	-	-	-	-	32	none proposed		No screening value		
Lead (dissolved)	µg/l	1	Hazardous Substance	10	10	10	15	14	not required		10	UK DWS	
Manganese (dissolved)	µg/l	1	Not Determined	50	-	100	-	123*	not required		50	UK DWS	*Consider Bioavailbility (M-BAT tool)
Magnesium (dissolved)	mg/l	1	Not Determined	-	-	-	-	-	none proposed		No screening value		
Mercury (dissolved)	µg/l	0.1	Hazardous Substance	1	1	6	2	0.07	not required		0.07	EQS	
Molybdenum (dissolved)	µg/l	0.5	Non Hazardous Pollutant	-	-	-	-	-	0.5	LOD	0.5	LOD	
Nickel (dissolved)	µg/l	1	Non Hazardous Pollutant	20	20	70	-	34	not required		20	UK DWS	
Potassium (dissolved)	mg/l	1.2	Not Determined	-	-	-	-	-	none proposed		No screening value		
Selenium (dissolved)	µg/l	1	Non Hazardous Pollutant	10	20	40	50	-	not required		10	UK DWS	
Sodium (dissolved)	mg/l	1	Non Hazardous Pollutant	200	200	50	-	-	not required		200000	UK DWS	
Vanadium (dissolved)	µg/l	1	Not Determined	-	-	-	-	20	not required		20	EQS	
Zinc (dissolved)	µg/l	1	Non Hazardous Pollutant	-	-	-	-	10.9*	not required		10.9	EQS	*Consider Bioavailbility (M-BAT tool)
PAH 16MS (w)													
Acenaphthene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	-	0.01	LOD	0.01	LOD	
Acenaphthylene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Anthracene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	0.1	not required		0.1	EQS	
Benzo(a)anthracene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Benzo(a)pyrene (w)	µg/l	0.01	Hazardous Substance	0.01	0.01	0.7	0.2	0.27	not required		0.01	UK DWS	
Benzo(b)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	0.017	none proposed (See Total PAH)		none proposed (See Total PAH)		
Benzo(ghi)perylene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	8.20E-04	none proposed (See Total PAH)		none proposed (See Total PAH)		
Benzo(k)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	0.017	none proposed (See Total PAH)		none proposed (See Total PAH)		
Fluoranthene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Dibenzo(ah)anthracene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Chrysene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	-	0.01	LOD	0.01	LOD	
Fluorene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Indeno(123-cd)pyrene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Naphthalene (w)	µg/l	0.01	Non Hazardous Pollutant	-	-	-	-	130	not required		130	EQS	
Phenanthrene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Pyrene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Total PAH (sum of 4 PAH*)	µg/l	0.01	-	0.1	0.1	-	-	-	not required		0.1	UK DWS	
TPH CWG (w)													
Ali >C5-C6 (w)	µg/l	1	Not Determined	-	-	15000	-	-	not required		15000	WHO DWS	
Ali >C6-C8 (w)	µg/l	1	Not Determined	-	-	15000	-	-	not required		15000	WHO DWS	
Ali >C8-C10 (w)	µg/l	5	Not Determined	-	-	300	-	-	not required		300	WHO DWS	
Ali >C10-C12 (w)	µg/l	5	Not Determined	-	-	300	-	-	not required		300	WHO DWS	
Ali >C12-C16 (w)	µg/l	5	Not Determined	-	-	300	-	-	not required		300	WHO DWS	
Ali >C16-C21 (w)	µg/l	5	Not Determined	-	-	-	-	-	none proposed		No screening value		
Ali >C21-C35 (w)	µg/l	5	Not Determined	-	-	-	-	-	none proposed		No screening value		
Total Aliphatics (w)	µg/l	5	Not Determined	-	-	-	-	-	none proposed		No screening value		
Aro >C5-C7 (w)	µg/l	1	Not Determined	1	1	10	5	50	not required		1	UK DWS	
Aro >C7-C8 (w)	µg/l	1	Not Determined	-	-	700	-	-	not required		700	WHO DWS	
Aro >C8-C10 (w)	µg/l	5	Not Determined	-	-	300	-	-	not required		300	WHO DWS	
Aro >C10-C12 (w)	µg/l	5	Not Determined	-	-	90	-	-	not required		90	WHO DWS	
Aro >C12-C16 (w)	µg/l	5	Not Determined	-	-	90	-	-	not required		90	WHO DWS	
Aro >C16-C21 (w)	µg/l	5	Not Determined	-	-	90	-	-	not required		90	WHO DWS	
Aro >C21-C35 (w)	µg/l	10	Not Determined	-	-	90	-	-	not required		90	WHO DWS	
Total Aromatics (w)	µg/l	10	Not Determined	-	-	-	-	-	none proposed		No screening value		
TPH (Ali & Aro >C5-C35) (w)	µg/l	10	Not Determined	-	-	-	-	-	none proposed		No screening value		
BTEX													
BTEX - Benzene (w)	µg/l	1	Hazardous Substance	1	1	0.7	5	50	not required		1	UK DWS	
BTEX - Toluene (w)	µg/l	1	Hazardous Substance	-	-	700	700	74	not required		74	EQS	
BTEX - Ethyl Benzene (w)	µg/l	1	Hazardous Substance	-	-	300	1000	-	not required		300	WHO DWS	
BTEX - m & p Xylene (w)	µg/l	1	Hazardous Substance	-	-	500	10000	30	not required		30	EQS	
BTEX - o Xylene (w)	µg/l	1	Hazardous Substance	-	-	500	10000	30	not required		30	EQS	
MTBE (w)	µg/l	1	Non Hazardous Pollutant	-	-	-	-	-	none proposed		No screening value		

Tier 2 DWS Screen

Notes

1 undertake T1 Screen

2 If substances fail T1 Screen, Decide whether it is appropriate to only assess against groundwater resource protection.

3 if so, for the substances that fail the T1 screen undertake T2 DWS only

4 Hierarchy of Formal DWS are 1 - UK/EU DWS, 2 - WHO DWS. 3 - USEPA DWS

5 Determine whether substance are either "Hazardous" or"Non-Hazardous" in relation to WFD / GWDD (see JAGDAG list)

6 For Haz Substances, use formal DWS if avaialbe. If no formal DWS available, Use MRL / LOD

7 For Non Haz Substances, use formal DWS if available .if no formal DWS available,**do not evaluate** / assess

Data sources		
UK DWS	The Water Supply (Water Quality) Regulations 2016	https://www.legislation.gov.uk/uksi/2016/614/contents
	The Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996	https://www.legislation.gov.uk/uksi/1996/3001/contents/made
EU DWS	Directive (EU) 2020/2184 - quality of water intended for human consumption	https://eur-lex.europa.eu/eli/dir/2020/2184/oj
WHO	Guidelines for Drinking-water Quality FOURTH EDITION Incorporating the first Addendum	https://www.who.int/publications/i/item/9789241549950
	Petroleum Products in Drinking-water - Background document for development of WHO Guidelines for Drinking-water Quality	https://www.who.int/water_sanitation_health/dwq/chemicals/petroleumproducts_1add_june2008.pdf
USEPA	USEPA National Primary Drinking Water Regulations	https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
JAGDAG	Groundwater hazardous substances standards	http://wfduk.org/resources/groundwater-hazardous-substances-standards
EQS	SEPA Supporting Guidance (WAT-SG-53) Environmental Quality Standards and Standards for Discharges to Surface Waters (v7.1 - April 2000)	https://www.sepa.org.uk/media/152957/wat-sg-53-environmental-quality-standards-for-discharges-to-surface-waters.pdf

Substance	Units	LOD ug/l)	Haz / Non Haz?	Groundwater Assessment Criteria				Alternative (u/l)	Source	Proposed Tier 1 WQS (ug/l)	Source	Comment
				UK DWS	EU DWS	WHO DWS	USEPA DWS					
Misc												
pH (w)	pH	0.01	-	>6.5 x <9.5	>6.5 x <9.5	-	-	not required		>6.5 x <9.5	UK DWS	
Electrical conductivity @ 20degC (w)	µs/cm	10	-	2500	2500	-	-	not required		2500	UK DWS	
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	5	-	-	-	-	-	none proposed		No screening value		
Hardness Total	mg/l Ca CO3	1	-	-	-	-	-	none proposed		No screening value		
COD (settled)	mg/l	20	-	-	-	-	-	none proposed		No screening value		
BOD (settled, 5 day)	mg/l	2	-	-	-	-	-	none proposed		No screening value		
Total Suspended Solids (w)	mg/l	10	-	-	-	-	-	none proposed		No screening value		
Ammoniacal nitrogen as N (w)	mg/l	0.02	-	0.5	0.5	-	-	not required		0.5	UK DWS	
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	0.000036	-	-	-	-	-	none proposed		No screening value		
Chloride (w)	mg/l	1	Not Determined	250	250	250	-	not required		250	UK DWS	
Nitrite (w)	mg/l	0.1	Not Determined	0.5	0.5	3	1	not required		500	UK DWS	
Nitrate (w)	mg/l	0.1	Not Determined	50	50	50	10	not required		50	UK DWS	
Sulphate (w)	mg/l	1	Not Determined	250	250	500	-	not required		250	UK DWS	
Sulphide (w)	mg/l	0.1	Not Determined	-	-	-	-	none proposed		No screening value		
DOC (w)	mg/l	0.2	-	-	-	-	-	none proposed		No screening value		
Metals												
Arsenic (dissolved)	µg/l	1	Hazardous Substance	10	10	10	10	not required		10	UK DWS	
Boron (dissolved)	µg/l	10	Non Hazardous Pollutant	1000	1500	2400	-	not required		1000	UK DWS	
Cadmium (dissolved)	µg/l	0.2	Non Hazardous Pollutant	5	5	3	5	not required		5	UK DWS	
Calcium (dissolved)	mg/l	1	Not Determined	-	-	-	-	none proposed		No screening value		
Copper (dissolved)	µg/l	1	Non Hazardous Pollutant	2000	2000	2000	1300	not required		2000	UK DWS	
Chromium (dissolved)	µg/l	1	Hazardous Substance	50	50	50	-	not required		50	UK DWS	
Chromium (hexavalent) (w)	mg/l	0.01	Hazardous Substance	50	50	50	100	not required		50	UK DWS	
Chromium (trivalent) (w)	mg/l	0.01	Hazardous Substance	-	-	-	-	not required		50	UK DWS	
Lead (dissolved)	µg/l	1	Hazardous Substance	10	10	10	15	not required		10	UK DWS	
Manganese (dissolved)	µg/l	1	Not Determined	50	-	100	-	not required		50	UK DWS	
Magnesium (dissolved)	mg/l	1	Not Determined	-	-	-	-	none proposed		No screening value		
Mercury (dissolved)	µg/l	0.1	Hazardous Substance	1	1	6	2	not required		1	UK DWS	
Molybdenum (dissolved)	µg/l	0.5	Non Hazardous Pollutant	-	-	-	-	none proposed		No screening value		
Nickel (dissolved)	µg/l	1	Non Hazardous Pollutant	20	20	70	-	not required		20	UK DWS	
Potassium (dissolved)	mg/l	1.2	Not Determined	-	-	-	-	none proposed		No screening value		
Selenium (dissolved)	µg/l	1	Non Hazardous Pollutant	10	20	40	50	not required		10	UK DWS	
Sodium (dissolved)	mg/l	1	Non Hazardous Pollutant	200	200	200	-	not required		200000	UK DWS	
Vanadium (dissolved)	µg/l	1	Not Determined	-	-	-	-	none proposed		No screening value		
Zinc (dissolved)	µg/l	1	Non Hazardous Pollutant	-	-	-	-	none proposed		No screening value		
PAH 16MS (w)												
Acenaphthene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	0.01	LOD	0.01	LOD	
Acenaphthylene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Anthracene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	0.01	LOD	0.01	LOD	
Benzo(a)anthracene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Benzo(a)pyrene (w)	µg/l	0.01	Hazardous Substance	0.01	0.01	0.7	0.2	not required		0.01	UK DWS	
Benzo(b)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Benzo(ghi)perylene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Benzo(k)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Fluoranthene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Dibenzo(ah)anthracene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Chrysene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	0.01	LOD	0.01	LOD	
Fluorene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Indeno(123-cd)pyrene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Naphthalene (w)	µg/l	0.01	Non Hazardous Pollutant	-	-	-	-	none proposed		No screening value		
Phenanthrene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Pyrene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Total PAH (sum of 4 PAH*)	µg/l	0.01	-	0.1	0.1	-	-	not required		0.1	UK DWS	
TPH CWG (w)												
Ali >C5-C6 (w)	µg/l	1	Not Determined	-	-	15000	-	not required		15000	WHO DWS	
Ali >C6-C8 (w)	µg/l	1	Not Determined	-	-	15000	-	not required		15000	WHO DWS	
Ali >C8-C10 (w)	µg/l	5	Not Determined	-	-	300	-	not required		300	WHO DWS	
Ali >C10-C12 (w)	µg/l	5	Not Determined	-	-	300	-	not required		300	WHO DWS	
Ali >C12-C16 (w)	µg/l	5	Not Determined	-	-	300	-	not required		300	WHO DWS	
Ali >C16-C21 (w)	µg/l	5	Not Determined	-	-	-	-	none proposed		No screening value		
Ali >C21-C35 (w)	µg/l	5	Not Determined	-	-	-	-	none proposed		No screening value		
Total Aliphatics (w)	µg/l	5	Not Determined	-	-	-	-	none proposed		No screening value		
Aro >C5-C7 (w)	µg/l	1	Not Determined	1	1	10	5	not required		1	UK DWS	
Aro >C7-C8 (w)	µg/l	1	Not Determined	-	-	700	-	not required		700	WHO DWS	
Aro >C8-C10 (w)	µg/l	5	Not Determined	-	-	300	-	not required		300	WHO DWS	
Aro >C10-C12 (w)	µg/l	5	Not Determined	-	-	90	-	not required		90	WHO DWS	
Aro >C12-C16 (w)	µg/l	5	Not Determined	-	-	90	-	not required		90	WHO DWS	
Aro >C16-C21 (w)	µg/l	5	Not Determined	-	-	90	-	not required		90	WHO DWS	
Aro >C21-C35 (w)	µg/l	10	Not Determined	-	-	90	-	not required		90	WHO DWS	
Total Aromatics (w)	µg/l	10	Not Determined	-	-	-	-	none proposed		No screening value		
TPH (Ali & Aro >C5-C35) (w)	µg/l	10	Not Determined	-	-	-	-	none proposed		No screening value		
BTEX												
BTEX - Benzene (w)	µg/l	1	Hazardous Substance	1	1	0.7	5	not required		1	UK DWS	
BTEX - Toluene (w)	µg/l	1	Hazardous Substance	-	-	700	700	not required		700	WHO DWS	
BTEX - Ethyl Benzene (w)	µg/l	1	Hazardous Substance	-	-	300	1000	not required		300	WHO DWS	
BTEX - m & p Xylene (w)	µg/l	1	Hazardous Substance	-	-	500	10000	not required		500	WHO DWS	
BTEX - o Xylene (w)	µg/l	1	Hazardous Substance	-	-	500	10000	not required		500	WHO DWS	
MTBE (w)	µg/l	1	Non Hazardous Pollutant	-	-	-	-	none proposed		No screening value		

Tier 2 EQS Screen

Notes

1 undertake T1 Screen

2 If substances fail T1 Screen, Decide whether it is appropriate to only assess against Surface Water protection (e.g. Surface water sample?)

3 however remember EQS assessment point (AP) is in Surface water **AFTER** dilution

4 if EQS are aviaible, use EQS

5 Hierarchy of EQS - use MAC. If no MAC, use AA

6 For copper/ Manganese and Zinc, cinsider Bioavailabiluty (M-BAT)

7 if no EQS, consider developing Predicted No-Effect concentration (PNEC)

8 alternatively, consider MRL / LOD

Data sources		
UK DWS	The Water Supply (Water Quality) Regulations 2016	https://www.legislation.gov.uk/uksi/2016/614/contents
	The Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996	https://www.legislation.gov.uk/uksi/1996/3001/contents/made
EU DWS	Directive (EU) 2020/2184 - quality of water intended for human consumption	https://eur-lex.europa.eu/eli/dir/2020/2184/oj
WHO	Guidelines for Drinking-water Quality FOURTH EDITION Incorporating the first Addendum	https://www.who.int/publications/i/item/9789241549950
	Petroleum Products in Drinking-water - Background document for development of WHO Guidelines for Drinking-water Quality	https://www.who.int/water_sanitation_health/dwq/chemicals/petroleumproducts_3add_june2008.pdf
USEPA	USEPA National Primary Drinking Water Regulations	https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
JAGDAG	Groundwater hazardous substances standards	http://wfduk.org/resources/groundwater-hazardous-substances-standards
EQS	SEPA Supporting Guidance (WAT-SG-53) Environmental Quality Standards and Standards for Discharges to Surface Waters (v7.1 - April 2000)	https://www.sepa.org.uk/media/152957/wat-sg-53-environmental-quality-standards-for-discharges-to-surface-waters.pdf

* Consider M-BAT bioavailability

Substance	Units	LOD ug/l)	Haz / Non Haz?	Surface Water Assessment Criteria Freshwater **MAC** EQS (ug/l)	Alternative (ug/l)	Source	Proposed Tier 1 WQS (ug/l)	Source	Comment
Misc									
pH (w)	pH	0.01	-	-	not required		>6.5 x <9.5	UK DWS	
Electrical conductivity @ 20degC (w)	µs/cm	10	-	-	not required		2500	UK DWS	
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	5	-	-	none proposed		No screening value		
Hardness Total	mg/l Ca CO3	1	-	-	none proposed		No screening value		**Informative only** Class 1: < 40 mg CaCO3/l Class 2: 40 to < 50 mg CaCO3/l Class 3: 50 to < 100 mg CaCO3/l Class 4: 100 to < 200 mg CaCO3/l Class 5: ≥ 200 mg CaCO3/l)
COD (settled)	mg/l	20	-	-	none proposed		No screening value		
BOD (settled, 5 day)	mg/l	2	-	-	none proposed		No screening value		
Total Suspended Solids (w)	mg/l	10	-	-	none proposed		No screening value		
Ammoniacal nitrogen as N (w)	mg/l	0.02	-		none proposed		No screening value		
Ammonia (Free Uninorised) as N (w) at 25degC	mg/l	0.000036	-	0.04	not required		0.04	EQS	
Chloride (w)	mg/l	1	Not Determined	250000	not required		250000	EQS	
Nitrite (w)	mg/l	0.1	Not Determined	-	none proposed		No screening value		
Nitrate (w)	mg/l	0.1	Not Determined	-	none proposed		No screening value		
Sulphate (w)	mg/l	1	Not Determined	400000	none proposed		No screening value		
Sulphide (w)	mg/l	0.1	Not Determined	-	none proposed		No screening value		
DOC (w)	mg/l	0.2	-	-	none proposed		No screening value		
Metals									
Arsenic (dissolved)	µg/l	1	Hazardous Substance	50	not required		50	EQS	
Boron (dissolved)	µg/l	10	Non Hazardous Pollutant	2000	not required		2000	EQS	
Cadmium (dissolved)	µg/l	0.2	Non Hazardous Pollutant	≤0.45 (class 1) 0.45 (class 2) 0.6 (class 3) 0.9 (class 4) 1.5 class 5)	not required		0.45	EQS	Hardness dependant
Calcium (dissolved)	mg/l	1	Not Determined	-	none proposed		No screening value		
Copper (dissolved)	µg/l	1	Non Hazardous Pollutant	1*	not required		1	EQS	*Consider Bioavailbility (M-BAT tool)
Chromium (dissolved)	µg/l	1	Hazardous Substance	-	none proposed		No screening value		
Chromium (hexavalent) (w)	mg/l	0.01	Hazardous Substance	3.4	not required		3.4	EQS	
Chromium (trivalent) (w)	mg/l	0.01	Hazardous Substance	32	not required		32	EQS	
Lead (dissolved)	µg/l	1	Hazardous Substance	14	not required		14	EQS	
Manganese (dissolved)	µg/l	1	Not Determined	123*	not required		123	EQS	*Consider Bioavailbility (M-BAT tool)
Magnesium (dissolved)	mg/l	1	Not Determined	-	none proposed		No screening value		
Mercury (dissolved)	µg/l	0.1	Hazardous Substance	0.07	not required		0.07	EQS	
Molybdenum (dissolved)	µg/l	0.5	Non Hazardous Pollutant	-	0.5	LOD	0.5	LOD	
Nickel (dissolved)	µg/l	1	Non Hazardous Pollutant	34	not required		34	EQS	
Potassium (dissolved)	mg/l	1.2	Not Determined	-	none proposed		No screening value		
Selenium (dissolved)	µg/l	1	Non Hazardous Pollutant	-	1	LOD	1	LOD	
Sodium (dissolved)	µg/l	1	Non Hazardous Pollutant	-	1	LOD	1	LOD	
Vanadium (dissolved)	µg/l	1	Not Determined	20	not required		20	EQS	
Zinc (dissolved)	µg/l	1	Non Hazardous Pollutant	10.9*	not required		10.9	EQS	*Consider Bioavailbility (M-BAT tool)
PAH 16MS (w)									
Acenaphthene (w)	µg/l	0.01	Hazardous Substance	-	0.01	LOD	0.01	LOD	
Acenaphthylene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Anthracene (w)	µg/l	0.01	Hazardous Substance	0.1	not required		0.1	EQS	
Benzo(a)anthracene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Benzo(a)pyrene (w)	µg/l	0.01	Hazardous Substance	0.27	not required		0.27	EQS	
Benzo(b)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	0.017	not required		0.017	EQS	
Benzo(ghi)perylene (w)*	µg/l	0.01	Hazardous Substance	8.20E-04	not required		8.20E-04	EQS	
Benzo(k)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	0.017	not required		0.017	EQS	
Fluoranthene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Dibenzo(ah)anthracene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Chrysene (w)	µg/l	0.01	Hazardous Substance	-	0.01	LOD	0.01	LOD	
Fluorene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Indeno(123-cd)pyrene (w)*	µg/l	0.01	Hazardous Substance	-	0.01	LOD	0.01	LOD	
Naphthalene (w)	µg/l	0.01	Non Hazardous Pollutant	130	not required		130	EQS	
Phenanthrene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Pyrene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Total PAH (sum of 4 PAH*)	µg/l	0.01	-	-	0.01	LOD	0.01	LOD	
TPH CWG (w)									
Ali >C5-C6 (w)	µg/l	1	Not Determined	-	none proposed		No screening value		
Ali >C6-C8 (w)	µg/l	1	Not Determined	-	none proposed		No screening value		
Ali >C8-C10 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Ali >C10-C12 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Ali >C12-C16 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Ali >C16-C21 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Ali >C21-C35 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Total Aliphatics (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C5-C7 (w)	µg/l	1	Not Determined	50	not required		50	EQS	
Aro >C7-C8 (w)	µg/l	1	Not Determined	-	none proposed		No screening value		
Aro >C8-C10 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C10-C12 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C12-C16 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C16-C21 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C21-C35 (w)	µg/l	10	Not Determined	-	none proposed		No screening value		
Total Aromatics (w)	µg/l	10	Not Determined	-	none proposed		No screening value		
TPH (Ali & Aro >C5-C35) (w)	µg/l	10	Not Determined	-	none proposed		No screening value		
BTEX									
BTEX - Benzene (w)	µg/l	1	Hazardous Substance	50	not required		50	EQS	
BTEX - Toluene (w)	µg/l	1	Hazardous Substance	74	not required		74	EQS	
BTEX - Ethyl Benzene (w)	µg/l	1	Hazardous Substance	-	1	LOD	1	LOD	
BTEX - m & p Xylene (w)	µg/l	1	Hazardous Substance	30	not required		30	EQS	
BTEX - o Xylene (w)	µg/l	1	Hazardous Substance	30	not required		30	EQS	
MTBE (w)	µg/l	1	Non Hazardous Pollutant	-	none proposed		No screening value		

Subject **Waste Assessment – Methodology**

Date 7 December 2021 Job No/Ref HE565627

It is hoped the scheme design can be optimised to retain / incorporate all site won excavated soils within the wider project and to minimise the requirement for off-site disposal. However, it is likely a proportion of site generated excavation arisings may be unsuitable for re-use within the scheme due to programme, storage space, geotechnical or geoenvironmental properties and therefore require to be discarded as waste.

A preliminary waste classification exercise has been undertaken using the results obtained from the ground investigations to determine the likely waste classification of soils within the scheme and provide a likely List of Waste (LoW) code in the event they require to be discarded as a waste.

Waste classification is a two-stage process, with the first step comprising a hazardous properties assessment of the soil quality data in line with the guidance set out in the Environment Agency: Guidance on the Classification and Assessment of Waste Technical Guidance WM3 document[1] to provide the likely LoW code.

The LoW codes are required to be provided to the receiving landfill. In relation to 'Construction and Demolition Wastes' the most likely relevant LoW codes are as follows:

- **17 05 03** - 'Hazardous' materials will have a LoW code of "Construction and Demolition Wastes * (soils and stones containing hazardous substances)". or
- **17 05 04** - 'Non-Hazardous' materials have the LoW code: "Construction and Demolition Wastes (soils and stones other than those in 17 05 03)".

If soils are classified as "non-hazardous" (LoW code 17 05 04), no further assessment is necessary and they may either be deposited in a 'non-hazardous' waste landfill (for which no WAC tests are required) or may potentially be considered as 'inert' waste (a sub-set of 'non-hazardous' waste), however this would require confirmation of suitability for this particular waste stream through WAC testing.

However, if soils are classified as "hazardous" (LoW code 17 05 03), a second step is required to be undertaken which assesses the potential mobility of the contaminants within the materials in a landfill by considering the results of waste acceptance criteria (WAC) testing

Generally, wastes that are classified as 'hazardous' require to be deposited in a hazardous waste landfill or within a stable non-reactive hazardous waste cell (typically restricted to asbestos containing materials) (depending on the WAC test results and interpretation).

Soil quality data from the ground investigation was entered into a hazard assessment tool, HazWasteOnline™

[1] Guidance on the classification and assessment of waste (1st Edition v1.2.GB) Technical Guidance WM3 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1021051/Waste_classification_technical_guidance_WM3.pdf

HazWasteOnline™ includes several options for using the different valencies (chemical species) or compounds that may be present, (e.g. whether the chromium found is chromium III or the less common but more toxic chromium VI). Where these options were available these were generally set at the default (worst case assessment) for the model in accordance with the guidance set out in EA WM3. Where this is not the case justification and site-specific reasoning is given.

It must be noted that hazardous waste guidance in the UK is revised at regular intervals and the results of the assessment could change with subsequent revisions.

Project specific amendments made to the default assumptions within HazWasteOnline

Default parameters HazWasteOnline™ assessment model can sometime provide an overly conservative assessment of the hazard posed by substances and therefore, as per the model guidance, a number of site-specific amendments require to be made more accurately reflect the specific species of contaminants found within the schemes. These are summarised as follows

1. Issues with the HazWasteOnline™ waste stream template which have been fixed:
    a. The C5 band without a CAS-RN has been ignored.
    b. Total TPH C10-C40 ali/aro has been ignored.
    c. Total TPH C5-C40 has been amended to TPH C6-C40.
2. Four different populations have been identified: Topsoil, Made Ground, Superficial Deposits and Rock each of which have separate jobs on HazWasteOnline™ for each soil type/population.
3. It is assumed Made Ground is homogenous vertical and laterally.
4. Metal species have been managed as follows:
    d. **Arsenic** (arsenic) - arsenic could be present on agricultural land due to application of insecticide/wood preservative.
    e. **Boron** (diboron trioxide; boric acid) - based on the hazard statements and molecular weight, physical form, and low solubility of Boron it is likely more soluble forms have been mobilised already on agricultural land.
    f. **Cadmium** (Cadmium oxide) – Species based on the hazard statements, molecular weight, and very low solubility in water. The worst-case compounds (cadmium sulphate, chloride, fluoride & iodide) are not expected as they are either very soluble and/or compound's industrial usage not related to site history as site has been in agricultural land use
    g. **Chromium III** (Chromium III oxide) – There is only one option on the template, and it is a reasonable worst case.

h. **Chromium VI compounds** – Although it can be found in wood preservatives there is no likely industrial /contaminative land use source on the sites.

i. **Copper** (Copper (I) oxide) - Based on hazard statements, molecular weight and insolubility in water. Sources can include brake pads/fungicides however, there are no likely industrial sources observed in the historic or current industrial review. It is also noted that the worst-case compound, copper sulphate, is very soluble and likely to have been leached away if ever present.

j. **Lead** compounds - Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

k. **Mercury** inorganic compounds - Reasonable worst-case compound as the sites have a very limited industrial history.

l. **Nickel** (Dinickel hexacyano ferrate) - Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

m. **Selenium** (nickel (II) selenite) – The next most likely worst-case compound, nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

n. **Zinc** - Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

o. **Cyanide** (Salts of hydrogen cyanide) - Harmonised group entry used as most reasonable, it is unlikely complex cyanides and those specified elsewhere in the annex are present in this soil. Note conversion factor based on a worst-case compound: sodium cyanide

5. Flammable hazardous property thresholds have been altered to 10,000mg/kg. This is because the Hazardous Property (HP) HP 3 (i) – Flammable is unlikely to apply to this waste stream, due to the solid soil and natural moisture content of the samples. The concentration required to provide a flammability risk is >10,000mg therefore, the risk of flammability from solid state soils with <1000mg/kg TPH is negligible.

D.2 Test Suites and Sample Catalogues

Subject **Chemical Testing Suites / LoD**

Date 7 December 2021 Job No/Ref HE565627

Soil Suites

Determinand	Units	LoD
Suite E1a - Primary Metals and Metalloids		
Arsenic	mg/kg	1
Boron (Water Soluble)	mg/kg	1
Cadmium	mg/kg	1
Total Chromium	mg/kg	1
Trivalent Chromium	mg/kg	1
Hexavalent Chromium	mg/kg	1
Copper	mg/kg	1
Lead	mg/kg	1
Mercury	mg/kg	1
Nickel	mg/kg	1
Selenium	mg/kg	1
Zinc	mg/kg	1
Suite E1b - Secondary Metals and Metalloids (R/O)		
Antimony	mg/kg	1
Barium	mg/kg	1
Beryllium	mg/kg	1
Molybdenum	mg/kg	1
Vanadium	mg/kg	1
Suite E2 - Inorganics		
pH	pH units	0.1
SOM	% w/w	0.01
TOC	% w/w	0.01
Sulphate	mg/kg	0.01
Sulphides	mg/kg	0.01
Loss on ignition	% w/w	0.1
Suite E3 - CN/Phenol		
Free Cyanide	mg/kg	1
Phenols – total	mg/kg	1
Suite E4a - Asbestos 1		
Asbestos Presence and ID	% w/w	0.001
Suite E4b - Asbestos 2 *		
Asbestos Quantification	% w/w	0.001
Suite E4c - Asbestos 3		
24hr water Absorption Test	%w/w	0.01
Suite E5 - General Organics		
Total Petroleum Hydrocarbons	mg/kg	50
Diesel Range Organics	mg/kg	50
Petrol Range Organics	mg/kg	1
Mineral oils	mg/kg	50
Suite E6a - TPHCWG		
TPHCWG	mg/kg	0.01
Suite E6b - BTEX		

Subject **Chemical Testing Suites / LoD**

Date 7 December 2021 Job No/Ref HE565627

Determinand	Units	LoD
BTEX	mg/kg	0.01
Suite E7a - Speciated PAHs 1		
USEPA 16 PAHs	mg/kg	0.01
Suite E7b - Speciated PAHs 2		
USEPA 16 PAHs + coronene	mg/kg	0.01
Suite E8a - PCBs 1		
PCBs (WHO12)	mg/kg	3
Suite E8b - PCBs 2		
PCBs (EC7)	mg/kg	0.1
Suite E9 - SVOCs and VOCs		
SVOCs with TIC	mg/kg	0.01
VOCs with TIC	mg/kg	0.01
Suite E10 - Organochlorine Pesticides		
Organochlorine herbicides/pesticides	mg/kg	0.005#
Suite E11 - Triazine Pesticides		
Triazine herbicides/pesticides	mg/kg	0.1
Suite E12 - Organophosphate Pesticides		
Organophosphate herbicides/pesticides	mg/kg	0.001#

WAC Suites

Determinand	Units	LoD
WAC Suite H		
WAC Suite H (2 stage) - ICE Inert WAC (BSEN12457-3, 2:1)	Various	Various
WAC Suite I		
WAC Suite I (2 Stage) - ICE SNR-Haz WAC (BSEN12457-3, 2:1)	Various	Various
WAC Suite J		
WAC Suite J (2 Stage)- ICE Haz WAC (BSEN12457-3, 2:1)	Various	Various

Water Suites

Determinand	Units	LoD
Suite F1a - Metals and Metalloids		
Arsenic	mg/L	1
Cadmium	mg/L	0.01
Chromium (III & VI)	mg/L	1
Copper	mg/L	0.1
Iron	mg/L	100
Lead	mg/L	0.1
Mercury	mg/L	0.01
Nickel	mg/L	1
Selenium	mg/L	1
Zinc	mg/L	1
pH value	pH Units	0.1
Calcium	mg/L	1

Subject **Chemical Testing Suites / LoD**

Date 7 December 2021 Job No/Ref HE565627

Determinand	Units	LoD
Hardness	$CaCO_3$ mg/L	2
Alkalinity as $CaCO_3$	mg/L	2
Dissolved organic carbon (DOC)	mg/L	1
Suite F1b - Metals and Metalloids		
Boron	mg/L	100
Magnesium	mg/L	1
Manganese	mg/L	1
Molybdenum	mg/L	1
Vanadium	mg/L	1
Suite F2 - Major Ions		
Sulphate	mg/L	1000
Chloride	mg/L	10
Nitrate	mg/L	1
Sulphide	mg S^{2-}/L	0.1
Nitrite	mg/L	100
Sodium	mg/L	100
Potassium	mg/L	1
Suite F3 - Ammoniacal Nitrogen		
Ammoniacal Nitrogen (to be reported as ammoniacal nitrogen as N and as unionised ammonia)	mg/L	50
Suite F4 - Electrical Conductivity		
Electrical Conductivity	ms/cm	5
Suite F5 - Total Suspended Solids		
Total Suspended Solids	mg/L	10
Suite F6 - Oxygen Demand		
Biological Oxygen Demand	mg O_2/L	1000
Chemical Oxygen Demand	mg O_2/L	50
Suite F7a - TPHCWG		
TPHCWG	mg/L	1
Suite F7b - BTEX		
BTEX	mg/L	0.1
Suite F8 - Speciated PAHs		
PAHs (USEPA 16)	mg/L	0.0001
Suite F9 - Volatiles		
VOC suite including TICs	mg/L	0.001
SVOC suite including TICs (including PAHs)	mg/L	0.001
Suite F10 Phenols and Cyanides		
Free cyanide	mg/L	0.5
Phenol	mg/L	1
Suite F11a - PCBs (WHO12)		
PCBs (WHO12)	mg/L	0.005
Suite F11b - PCBs (EC7)		
PCBs (EC7)	mg/L	0.005
Suite F12 - Organochlorine Pesticides		
Organochlorine herbicides/pesticides	mg/L	0.0001
Suite F13 - Triazine Pesticides		
Triazine herbicides/pesticides	mg/L	0.001

Subject **Chemical Testing Suites / LoD**

Date 7 December 2021 Job No/Ref HE565627

Determinand	Units	LoD
Suite F14 - Organophosphate Pesticides		
Organophosphate herbicides/pesticides	mg/L	0.01
Suite F15 - General Organics		
Total Petroleum Hydrocarbons	mg/L	10
Diesel Range Organics	mg/L	10
Petrol Range Organics	mg/L	10
Mineral oils by IR	mg/L	100
Suite F16 - Bacterial Suite		
Bacterial Suite	number/100 ml	0

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D2 - Sample Catalogue

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D2 - Sample Catalogue
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000011

Rev	Suit. Code	Suitability		Purpose of Issue		
P02	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	14/12/21	14/12/21	14/12/21	14/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	10/12/21	10/12/21	13/12/21	13/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (C10 - C40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
Count	50	106	106	93	106	100	101	59	41	0	0	0	0	106	0	106	0	0	0	0	0	0	0	38	0	0
3	TPKTB003	0.20	TOPSOIL	21-02004	X	X	X	X	X					X		X								X		
		0.50	Orangish brown clayey sand	21-02004	X	X	X	X	X					X		X										
	TPKTB005	0.20	TOPSOIL	21-02004	X	X	X	X	X					X		X										
		2.50	reddish orange clayey gravelly sand	21-02004	X	X	X	X	X					X		X										
	TPKTB009	0.40	brown sandy gravelly clay	21-02004	X	X	X	X	X					X		X								X		
		0.80	reddish orange clayey gravelly sand	21-02004	X	X	X	X	X					X		X										
4	BHKTB015	0.20	TOPSOIL	21-02004	X	X	X	X	X					X		X										
		0.50	reddish brown sandy gravelly clay	21-02004	X	X	X	X	X					X		X								X		
5	BHKTB022	0.10	MG - sandy silty clay	21-02004	X	X	X	X	X					X		X								X		
		1.00	orange brown gravelly silty sand	21-02004	X	X	X	X						X		X										
6	BHKTB028	0.50	reddish brown sandy gravelly clay	21-02004	X	X	X	X	X					X		X								X		
		1.00	reddish brown sandy gravelly clay	21-02004	X	X	X	X						X		X										
7	TP KTB010	0.50	orange brown gravelly clay	21-02051	X	X	X	X	X					X		X										
		2.50	reddish brown sandy gravelly clay	21-02051	X	X		X						X		X								X		
	TP KTB011	0.50	MG reworked natural - orangish brown sandy clay	21-02051	X	X	X	X	X					X		X										
		2.00	orangish brown clayey sand	21-02051	X	X	X	X						X		X								X		
	TP KTB013	0.20	TOPSOIL	21-02051	X	X	X	X	X					X		X								X		
		2.50	brown sandy gravelly clay	21-02051	X	X		X						X		X										
	TP KTB014	0.20	TOPSOIL	21-02051	X	X	X	X	X					X		X										
		3.50	reddish brown sandy gravelly clay	21-02051	X	X	X	X						X		X								X		
8	BH KTB002	0.50	TOPSOIL	21-02004	X	X	X	X	X					X		X								X		
		1.50	SAND	21-02004	X	X		X						X		X										
10	BH KTB014	0.10	TOPSOIL	21-02004	X	X	X	X	X					X		X										
		1.00	Orange brown gravelly sandy clay	21-02004	X	X		X						X		X								X		
12	BH KTB003	0.50	TOPSOIL	21/02379	X	X	X	X						X		X										
		1.50	sand	21/02379	X	X	X	X						X		X										
	BH KTB013	0.50	TOPSOIL	21-02173	X	X	X	X						X		X								X		
		1.20	CLAY	21-02173	X	X	X	X						X		X										
13	TP KTB018	0.20	MG	21-02171	X	X	X	X	X					X		X								X		
		0.50	MG	21-02171	X	X	X	X	X					X		X										
	TP KTB019	0.20	TOPSOIL	21-02171	X	X	X	X	X					X		X										
		2.00	CLAY	21-02171	X	X	X	X						X		X										
14	BH KTB009	0.20	TOPSOIL	21-02380	X	X	X	X	X					X		X										
		0.50	SAND	21-02380	X	X	X	X	X					X		X										
		1.00	SAND	21-02380	X	X	X	X	X					X		X								X		
	BH KTB018	0.30	TOPSOIL	21-03108	X	X	X	X						X		X										
		0.50	CLAY	21-03108	X	X	X	X						X		X										
		1.20	CLAY	21-03108	X	X	X	X						X		X								X		
15	BH KTB027	0.30	TOPSOIL	21-02376	X	X	X	X						X		X										
		1.50	CLAY	21-02376	X	X	X							X		X										
16	BH KTB017	0.30	TOPSOIL	21-02173	X	X	X							X		X										
		0.50	CLAY	21-02173	X	X	X							X		X										
		1.20	CLAY	21-02173	X	X	X							X		X										
17	BH KTB021 mining	0.20	TOPSOIL	21-02373	X	X	X	X	X					X		X								X		
		0.50	CLAY	21-02373	X	X	X	X	X					X		X										
		0.90	SAND	21-02373	X	X	X	X	X					X		X										
	TP KTB022	0.20	TOPSOIL	21-02373	X	X	X	X	X					X		X								X		
		0.60	SAND	21-02373	X	X	X	X	X					X		X										
		2.90	CLAY	21-02373	X	X	X							X		X										
	TP KTB024	0.70	TOPSOIL	21-02373	X	X	X	X	X					X		X										
		1.70	CLAY	21-02373	X	X	X							X		X								X		
		2.60	CLAY	21-02373	X	X	X							X		X										
18	BH KTB016A	0.30	TOPSOIL	21-02377	X	X	X							X		X										
		0.50	CLAY	21-02377	X	X	X							X		X										

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (C10 - C40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
Count	50	106	106	93	106	100	101	59	41	0	0	0	0	106	0	106	0	0	0	0	0	0	0	38	0	0
19	TP KTB023	0.20	CLAY	21-02375	X	X	X	X	X					X		X										
		0.60	CLAY	21-02375	X	X	X	X	X					X		X								X		
		1.60	CLAY	21-02375	X	X	X							X		X										
20	BH KTB023	0.20	TOPSOIL	21-02378	X	X	X							X		X								X		
		0.60	CLAY	21-02378	X	X	X							X		X										
22	BHKTB019	0.30	TOPSOIL	21-02361	X	X	X							X		X										
		1.20	Brown sandy gravelly CLAY	21-02361	X	X	X							X		X								X		
24	BHKTB011	0.10 - 0.20	TOPSOIL	21-07371	X	X	X	X	X					X		X								X		
		1.0 - 1.10	orange brown gravelly SAND	21-02371	X	X	X							X		X										
25	BHKTB012	0.1 - 0.2	TOPSOIL	21/2383	X	X	X							X		X								X		
		1.00 - 1.10	Medium dense reddish brown clayey gravelly SAND	21/2383	X	X								X		X										
27	BHKTB005	0.30	TOPSOIL	21/03115	X	X	X							X		X										
		1.50	Reddish brown sandy gravelly clay	21/03115	X	X	X							X		X								X		
29	TP KTB017	0.20	MG - soft brown sandy gravelly CLAY	21/02385	X	X	X	X	X					X		X										
		0.70	MG - soft to firm reddish brown yellow mottled sandy gravelly CLAY	21/02385	X	X	X	X	X					X		X										
		2.50	stiff reddish brown localised yellow mottled sandy gravelly CLAY	21/02385	X	X	X							X		X								X		
30	BHKTB006 (IP)	0.10 - 0.20	Possible MG	21/02381	X	X	X	X	X					X		X										
		1.10 - 1.20	brown gravelly clayey SAND	21/02381	X	X	X							X		X										
31	BHKTB004	0.30	TOPSOIL	21-03112	X	X	X							X		X										
		0.50	reddish brown gravelly clayey SAND	21-03112	X	X	X							X		X										
32	BHKTB024	0.50	TOPSOIL	21-02369	X	X	X							X		X										
		1.20	reddish brown sandy gravelly clay		X	X	X							X		X										
33	BH KTB025	0.50	Reddish brown very gravelly slightly clayey SAND	21-02368	X	X	X							X		X								X		
	BH KTB026	0.30	TOPSOIL		X	X	X							X		X										
		0.50	Soft reddish brown sandy gravelly CLAY		X	X	X							X		X										
34	TP KTB016 (BRE)	0.50	MG: Soft to firm greyish brown with localised yellow mottling soft to firm sandy gravelly CLAY.	21-02502	X	X	X	X	X					X		X								X		
		0.80	Possible MG: Soft to firm reddish brown sandy gravelly CLAY	21-02502	X	X	X	X	X					X		X										
35	BH KTB007A	0.10	brown clayey gravelly SAND	21/02466	X	X	X							X		X										
		1.10	Greyish brown occasionally mottled orangish brown slightly gravelly slightly sandy CLAY	21/02466	X	X	X							X		X								X		
37	BH KTB007	0.30	TOPSOIL	21-02488	X	X	X							X		X										
		1.50	Red/brown sandy gravelly CLAY	21-02488	X	X	X							X		X										
	BH KTB008	0.40	Brown clayey gravelly SAND	21-02488	X	X	X	X						X		X								X		
	BH KTB036	0.30	Reddish brown clayey gravelly SAND	21-02488	X	X	X							X		X										
		1.50	Reddish brown clayey gravelly SAND	21-02488	X	X	X							X		X										
45	BH KTB020	0.50	Orange brown gravelly clayey SAND	21-03005	X	X	X							X		X								X		
		1.20	Red/brown sandy gravelly CLAY	21-03005	X	X	X							X		X										
50	BH KTB010	0.30	TOPSOIL	21-02725	X	X	X	X	X					X		X										
		1.00	Soft dark brown mottled light orangish brown silty sandy gravelly CLAY, MG	21-02725	X	X	X	X	X					X		X								X		
65	TP KTB004	0.20	TOPSOIL	21-03004	X	X	X							X		X										
		0.50	Dark brown slightly gravelly silty fine to coarse SAND.		X	X	X							X		X										
		1.20	Light orangish brown gravelly silty fine to coarse SAND		X	X	X							X		X								X		
116	TP KTB006	0.20	Topsoil - slightly gravelly clayey sand	21/04005	X	X	X	X	X					X		X								X		
		0.60	slightly gravelly clayey sand		X	X	X							X		X										
	TP KTB007	0.60	gravelly clayey sand		X	X	X							X		X								X		
		1.50	slightly gravelly clay		X	X	X							X		X										
	TP KTB008	0.20	Topsoil - clayey slightly gravelly sand		X	X	X	X	X					X		X								X		
144	TP KTB001	0.30	Topsoil gravelly clayey sand	21-04676	X		X	X	X					X		X										
		0.70	slightly gravelly clayey sand		X		X							X		X								X		
	TP KTB002	0.60	slightly gravelly clayay sand		X		X							X		X										
		1.20	slightly gravelly sandy clay		X		X							X		X								X		
145	BH KTB001	0.50	topsoil	21-04675	X		X							X		X								X		
		1.00	slightly gravelly clayey sand		X		X							X		X										

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (C10 - C40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
Count	41	83	83	83	83	2	82	41	42	0	0	0	0	83	0	83	0	0	0	0	0	0	0	29	0	0
1	TPKTA002	0.20	TOPSOIL	21-01665	X		X	X	X					X		X								X		
		0.35	CLAY	21-01665	X		X	X	X					X		X										
	TPKTA003	0.30	grass over brown gravelly silty SAND	21-02004	X		X	X	X					X		X										
		2.00	Reddish brown sandy gravelly CLAY	21-02004	X		X	X	X					X		X								X		
2	TPKTA005	0.20	TOPSOIL	21-02004	X		X	X	X					X		X										
		0.50	Reddish brown sandy gravelly CLAY	21-02004	X		X	X	X					X		X										
	TPKTA007	0.50	orangish brown gravelly sandy clayey SILT	21-02004	X		X	X	X					X		X										
		1.00	reddish brown sandy gravelly CLAY	21-02004	X		X	X	X					X		X										
	TPKTA008	0.10	ashy SAND	21-02004	X		X	X	X					X		X								X		
		1.00	orangish brown gravelly sandy clayey SILT	21-02004	X		X	X	X					X		X										
3	TPKTA004	0.20	TOPSOIL	21-02004	X		X	X	X					X		X										
		1.10	reddish brown sandy gravelly CLAY	21-02004	X		X	X	X					X		X								X		
9	TPKTA011	GL - 0.2	TOPSOIL	21-02404	X	X	X	X	X					X		X								X		
		1.50	reddish brown sandy gravelly CLAY	21-02404	X	X		X						X		X										
11	TP KTA020	0.20	TOPSOIL	21-02195	X		X	X	X					X		X										
		1.50	CLAY	21-02195	X		X	X						X		X								X		
12	BH KTA004	0.30	TOPSOIL	21-03109	X		X	X						X		X										
		0.50	CLAY	21-03109	X		X	X						X		X								X		
		1.50	CLAY	21-03109	X		X	X						X		X										
21	TP KTA013	0.20	TOPSOIL/ MG	21-02370	X		X	X	X					X		X								X		
		0.50	yellow silty sandy gravelly CLAY	21-02370	X		X		X					X		X										
23	TP KTA014	0.20	TOPSOIL MG	21-02372	X		X	X	X					X		X								X		
		0.60	Red dbrown sandy gravelly CLAY	21-02372	X		X		X					X		X										
26	BH KTA003	0.30	TOPSOIL MG	21-02382	X		X							X		X										
		1.50	firm to stiff reddish brown gravelly clayey SAND	21-02382	X		X							X		X								X		
	BH KTA005	0.00 - 0.30	TOPSOIL MG	21-02382	X		X	X	X					X		X										
		1.00	firm to stiff reddish brown gravelly sandy CLAY	21-02382	X		X							X		X								X		
		0.20	MG - TOPSOIL	21-02385	X		X	X	X					X		X										
28	TP KTA015	0.60	Orange brown sandy gravelly CLAY	21-02385	X		X	X	X					X		X								X		
		1.50	red brown sandy gravelly CLAY	21-02385	X		X	X	X					X		X										
	TP KTA016	0.50	MG: Soft orangish brown sandy slightly gravelly CLAY	21-02465	X		X	X	X					X		X								X		
		0.90	MG: Soft to firm reddish brown sandy slightly gravelly CLAY	21-02465	X		X							X		X										
36	TP KTA017	0.20	TOPSOIL	21-02465	X		X		X					X		X										
		0.50	CLAY	21-02465	X		X		X					X		X								X		
		3.10	CLAY	21-02465	X		X							X		X										
38	BH KTA006	0.3	TOPSOIL	21-02498	X		X	X	X					X		X										
		1.5	Reddish brown gravelly clayey SAND	21-02498	X		X							X		X										
39	TP KTA019	0.2	TOPSOIL	21-02513	X		X	X	X					X		X										
		0.5	Orangish brown sandy gravelly CLAY MG	21-02513	X		X	X	X					X		X										
		1.2	Firm to stiff high strength reddish brown with localised yellow mottling slightly sandy gravelly CLAY	21-02513	X		X							X		X								X		
40	TP KTA018	0.2	TOPSOIL	21-02504	X		X	X	X					X		X								X		
		0.9	Firm to stiff high strength reddish brown with localised yellow mottling slightly sandy gravelly CLAY	21-02504	X		X							X		X										
41	BH KTA012	0.1	TOPSOIL	21-02580	X		X							X		X										
		1.2	CLAY	21-02580	X		X							X		X								X		
	BH KTA018	0.3	TOPSOIL	21-03113	X		X							X		X										
		1.5	CLAY	21-03113	X		X							X		X								X		
	BH KTA021	0.3	TOPSOIL	21-02580	X		X							X		X								X		
		0.5	CLAY	21-02580	X		X							X		X										
46	BH KTA011	0.2	TOPSOIL	21-02721	X		X							X		X										
		1.2	orangish brown sandy CLAY	21-02721	X		X							X		X								X		
56	BH KTA010	0.20	TOPSOIL	21-03001	X		X							X		X										
		1.20	orangish brown sandy gravelly CLAY	21-03001	X		X							X		X										
55	BH KTA017	0.30	brown slightly sandy very gravelly CLAY	21-02858	X		X							X		X										
		1.00	CLAY	21-02858	X		X		X					X		X								X		
58	TP KTA006	0.20	TOPSOIL	21-02994	X		X							X		X										
		1.20	Firm light orangish brown slightly gravelly sandy CLAY.	21-02994	X		X							X		X								X		
60	BH KTA009	0.20	TOPSOIL	21-02854	X		X							X		X										
		0.50	Soft orangish brown slightly sandy gravelly CLAY	21-02854	X		X							X		X										

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (C10 - C40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
Count	41	83	83	83	83	2	82	41	42	0	0	0	0	83	0	83	0	0	0	0	0	0	0	29	0	0
61	BH KTA019	1.00	reddish brown slightly gravelly slightly sandy CLAY	21-02999	X		X							X		X										
	BH KTA017	0.30	brown slightly sandy very gravelly CLAY	21-02858	X		X							X		X										
		1.00	brown slightly sandy very gravelly CLAY	21-02858	X		X							X		X										
62	BH KTA008	0.20	TOPSOIL	21-02956	X		X	X	X					X		X								X		
		0.50	Reddish brown gravelly very clayey fine to coarse SAND	21-02956	X		X							X		X										
64	TP KTA009	0.90	reddish brown with localised yellowish mottling slightly sandy gravelly CLAY	21-02954	X		X							X		X										
		3.20	reddish brown with localised yellowish mottling slightly sandy gravelly CLAY	21-02954	X		X							X		X								X		
66	TP KTA010	0.20	TOPSOIL	21-02934	X		X							X		X										
		2.20	reddish brown with localised yellowish mottling slightly sandy gravelly CLAY	21-02934	X		X							X		X										
70	BH KTA007	0.20	Reworked TOPSOIL	21-02999	X		X	X	X					X		X										
		1.20	Greyish brown clayey gravelly fine to coarse SAND	21-02999	X		X							X		X								X		
73	BH KTA015	0.1	topsoil	21-03114	X		X	X	X					X		X										
		1.2	clay	21-03114	X		X							X		X										
74	BH KTA014	0.2	TOPSOIL	21-03179	X		X	X	X					X		X								X		
		1.2	SAND	21-03179	X		X	X	X					X		X										
75	WS KTA001	0.1	TOPSOIL	21-03107	X		X	X	X					X		X										
76	WS KTA002	0.4	CLAY	21-03110	X		X	X	X					X		X										
78	BH KTA013	0.20	MADE GROUND: Grass overlying dark brown slightly gravelly slightly clayey fine to coarse SAND with rootlets.	21-0.238	X		X	X	X					X		X										
		1.20	Brown gravelly slightly clayey fine to coarse SAND	21-0.238	X		X							X		X								X		
79	BH KTA022	0.30	Possible MADE GROUND: Grass overlying dark brown slightly gravelly sandy CLAY	21-03236	X		X	X	X					X		X										
		1	Firm reddish brown slightly gravelly sandy CLAY	21-03236	X		X							X		X										
82	BH KTA020	0.2	MG - slightly gravelly slightly silty clayey sand. Gravel with mixed lithologies	21-03296	X		X	X	X					X		X										
		0.5	Possible MG - slightly gravelly slightly silty sandy Clay	21-03296	X		X		X					X		X								X		
133	TP KTA012	0.2	TOPSOIL	21-04162	X		X	X	X					X		X										
		0.4	BROWN CLAYEY SAND	21-04162	X		X							X		X								X		

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (C10 - C40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
Count	107	189	189	134	189	0	188	74	69	0	0	0	0	189	0	189	0	0	0	8	0	0	0	88	0	0
42	BH AB001	0.30	TOPSOIL	21-02663	X		X							X		X										
		0.50	Reddish brown gravelly silty SAND	21-02663	X		X							X		X								X		
43	TP AB001	0.20	TOPSOIL	21-02578	X		X	X	X					X		X								X		
		0.70	Orangish brown gravelly clayey SAND, MG	21-02578	X		X	X	X					X		X										
44	TP AB003	0.20	TOPSOIL	21-02764	X		X	X	X					X		X										
		0.60	Orangish brown gravelly clayey SAND, MG	21-02764	X		X	X	X					X		X										
		2.40	Reddish brown gravelly clayey SAND, poss MG	21-02764	X		X	X						X		X								X		
47	BH AB002	0.30	Sand	21-02720	X		X							X		X										
		0.50	sand	21-02720	X		X							X		X										
48	TPAB006	0.20	TOPSOIL MG	21-02993	X		X	X	X					X		X										
		0.50	Reddish brown gravelly clayey SAND, poss MG	21-02993	X		X							X		X										
		2.20	reddish brown sandy gravelly CLAY, poss MG	21-02993	X		X							X		X										
49	TP AB009	0.15	TOPSOIL	21-02763	X		X	X	X					X		X										
		0.50	SAND	21-02763	X		X							X		X								X		
	TP AB010	0.60	MG	21-02763	X		X							X		X										
		1.40	CLAY	21-02763	X		X							X		X										
51	BH AB003	0.30	TOPSOIL	21-02723	X		X							X		X										
		1.20	Light orangish brown slightly gravelly clayey fine to coarse SAND	21-02723	X		X							X		X								X		
52	BH AB005	0.50	Brown slightly gravelly slightly clayey fine to coarse SAND	21-02724	X		X							X		X										
		1.50	Medium dense light orangish brown slightly gravelly fine to coarse SAND.	21-02724	X		X							X		X								X		
53b	TP AB011	0.60	Greyish brown slightly gravelly clayey fine to coarse SAND - MG	21-02825	X		X	X	X					X		X								X		
		1.50	Reddish brown with greyish mottling slightly gravelly clayey fine to coarse SAND	21-02825	X		X	X	X					X		X										
	TP AB012	0.15	MG	21-02825	X		X	X	X					X		X										
		0.60	SAND	21-02825	X		X	X	X					X		X								X		
54	BH AB010	0.50	Medium dense light orangish brown clayey fine to coarse SAND.	21-02826	X		X		X					X		X								X		
57	TP AB013	0.60	Orangish brown slightly gravelly clayey fine to coarse SAND	21-02857	X		X							X		X										
		3.20	Reddish brown slightly gravelly clayey fine to coarse SAND	21-02857	X		X							X		X										
59	TP AB016	0.20	TOPSOIL MG	21-02586	X		X	X	X					X		X										
		0.50	Orangish brown slightly gravelly clayey fine to coarse SAND, MG	21-02856	X		X	X	X					X		X										
63	TP AB017	0.20	TOPSOIL	21-02955	X		X							X		X										
		0.50	Orangish brown slightly gravelly clayey fine to coarse SAND	21-02955	X		X							X		X										
		1.50	Reddish brown with localised yellowish mottling slightly gravelly clayey fine to coarse SAND	21-02955	X		X							X		X								X		
67	BH AB006	0.50	Reddish light brown slightly silty gravelly fine to coarse SAND	21-02854	X		X							X		X								X		
68	BH AB008	0.30	TOPSOIL MG	21-02956	X		X							X		X										
		1.50	Reddish brown gravelly clayey SAND	21-02956	X		X							X		X										
69	TP AB005	0.20	TOPSOIL	21-02992	X		X	X	X					X		X										
		0.50	Dark greyish brown clayey fine to coarse SAND.	21-02992	X		X	X	X					X		X								X		
71	TP AB007	0.20	TOPSOIL MG	21-03000	X		X							X		X								X		
		0.50	Light orangish-brown gravelly clayey fine to coarse SAND	21-03000	X		X							X		X										
72	BH AB009	0.50	Reddish brown clayey silty slightly gravelly fine to coarse SAND	21-03058	X		X	X	X					X		X								X		
77	BH AB018	0.30	TOPSOIL	21-03182	X		X	X	X					X		X								X		
		0.50	Soft brown mottled yellowish brown slightly gravelly slightly sandy silty CLAY	21-03182	X		X							X		X										
80	BH AB027	0.20	TOPSOIL	21-03285	X		X							X		X										
		0.50	Light orangish brown mottled dark reddish brown gravelly clayey fine to coarse SAND		X		X							X		X								X		
	BH AB028	0.20	TOPSOIL		X		X	X	X					X		X				X				X		
81	TP AB019	0.50	slightly gravelly clayey SAND	21-03294	X		X							X		X								X		
83	BH AB019	0.50	Topsoil - slightly gravelly sandy CLAY	21-03293	X		X	X	X					X		X								X		
84	TP AB028	0.50	Possible MG - sandy slightly gravelly clay	21-03287	X		X	X	X					X		X				X						
		0.80	Possible MG - slightly gravelly clay with low cobble content		X		X							X		X				X						
	TP AB030	0.20	Possible MG - slightly sandy slightly gravelly clay		X		X	X	X					X		X				X				X		
		0.50	slightly sandy slightly gravelly CLAY		X		X							X		X				X						
85	BH AB019A	0.10	TOPSOIL - slightly gravelly very sandy CLAY	21-03998	X		X		X					X		X										
		0.50	slightly gravelly sandy clay	21-03998	X		X							X		X										
86	TP AB033	0.20	Possible MG - slightly gravelly clayey SAND	21-03297	X		X	X	X					X		X										
		0.60	slightly gravelly clayey SAND		X		X							X		X								X		
87	TP AB020	0.50	slightly gravelly clayey SAND	21-03291	X		X	X						X		X								X		

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (C10 - C40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
Count	107	189	189	134	189	0	188	74	69	0	0	0	0	189	0	189	0	0	0	8	0	0	0	88	0	0
88	TP AB022	0.20	Topsoil slightly gravelly sand	21-03290	X		X	X	X					X		X										
		1.20	slightly gravelly silty SAND		X		X							X		X								X		
	TP AB027	0.50	gravelly clayey sand		X		X	X						X		X								X		
89	TP AB038	0.20	MG - reworked topsoil with concrete and sandstone gravel	21-03292	X		X	X	X					X		X										
		1.20	gravelly clayey sand		X		X							X		X								X		
90	BH AB020	0.50	brown gravelly sand	21-03299	X		X							X		X								X		
91	BH AB041	0.50	gravelly very sandy CLAY	21-03418	X		X							X		X								X		
92	TP AB015	0.20	Topsoil Dark brown silty fine to coarse SAND with frequent roots and rootlets	21-03500	X		X		X					X		X								X		
		0.50	Light orangish brown mottled dark greyish brown slightly gravelly clayey fine to coarse SAND.	21-03500	X		X							X		X										
93	TP AB029	0.20	MG topsoil - slightly sandy silty sand. Gravel contained clinker	21-03416	X		X	X	X					X		X								X		
		0.50	gravelly silty sand		X		X							X		X										
	TP AB031	0.10	Topsoil - slightly gravelly clayey sand. Gravel of mixed lithologies		X		X		X					X		X										
		1.20	slightly gravelly clayey sand		X		X							X		X								X		
	TP AB032	0.50	Topsoil - gravelly clayey sand		X		X	X						X		X								X		
		2.40	gravelly clayey sand		X		X							X		X										
94	TP AB034	0.20	Topsoil - slightly gravelly clayey sand. Gravel of mixed lithologies	21-03523	X		X	X	X					X		X								X		
		0.60	slightly gravelly clayey SAND		X		X							X		X										
	TP AB035	0.60	slightly gravelly clayey SAND		X		X							X		X										
		1.40	sandy slightly gravelly clay		X		X							X		X								X		
95	BH AB042	0.50	slightly gravelly very clayey sand	21-03526	X		X							X		X								X		
96	BH AB044	0.20	clayey slightly gravelly sand	21-03532	X		X	X	X					X		X										
		0.50	ALLUVIUM slightly gravely clayey sand		X		X							X		X								X		
97	TP AB036	0.20	MG - sandy clayey gravel	21-03687	X		X	X	X					X		X										
		0.70	slightly gravelly clayey SAND	21-03687	X		X							X		X								X		
	TP AB037	0.20	slightly gravelly clayey SAND	21-03687	X		X	X	X					X		X										
		1.50	slightly gravelly clayey SAND with low cobble content	21-03687	X		X							X		X										
98	WS AB007	1.00	slightly gravelly slightly clayey sand	21-03615	X		X	X						X		X								X		
99	BH AB014	0.20	Topsoil - slightly gravelly very clayey sand	21-03617	X		X	X	X					X		X										
		0.50	slightly gravelly sandy clay	21-03617	X		X							X		X										
100	BH AB011	0.20	Topsoil = gravvly sandy clay	21-03686	X		X							X		X										
		0.50	gravelly clayey sand	21-03686	X		X							X		X								X		
	BH AB043	0.10	Topsoil	21-03686	X		X							X		X										
		1.20	ALLUVIUM gravely clayey sand	21-03686	X		X							X		X								X		
101	TP AB041	0.60	gravelly clayey sand	21-03621	X		X							X		X								X		
		1.50	gravelly clayey sand		X		X							X		X										
102	TP AB042	0.20	Topsoil - slightly gravelly clayey sand. Gravel of mixed lithologies	21-03620	X		X	X	X					X		X								X		
		0.70	slightly gravelly clayey sand	21-03620	X		X							X		X										
103	TP AB039	0.50	slightly gravelly clayey sand	21-03618	X		X	X	X					X		X										
		1.20	slightly gravelly clayey sand		X		X							X		X								X		
	TP AB040	0.20	Topsoil - slightly gravelly silty sand		X		X	X	X					X		X										
		1.00	slightly gravelly clayey sand		X		X							X		X								X		
104	TP AB052	0.50	MG - slightly sandy clay	21-03622	X		X	X	X					X		X										
		1.20	MG - slightly sandy clayey gravel, with brick and chert		X		X	X	X					X		X								X		
		1.90	sand		X		X							X		X										
105	BH AB045	0.20	topsoil - slightly gravelly clayey sand.	21-03619	X		X	X	X					X		X										
		0.50	slightly gravelly very clayey sand	21-03619	X		X							X		X								X		
106	TP AB014	0.20	Topsoil - slightly gravelly clayey sand	21-03672	X		X	X	X					X		X								X		
		0.60	slightly gravelly clayey sand	21-03672	X		X	X						X		X										
107	TP AB018	0.20	Topsoil - s;lightly gravelly clayey sand	21-03674	X		X	X	X					X		X										
		1.50	slightly gravelly clayey sand	21-03674	X		X							X		X								X		
108	BH AB015	0.50	slightly gravelly sandy clay	21-03811	X		X							X		X								X		
109	BH AB040	0.20	Topsoil slightly gravelly sand	21-03746	X		X	X	X					X		X										
		1.20	slightly gravelly silty SAND	21-03746	X				X					X		X								X		
110	BH AB026	0.20	topsoil	21-03807	X		X	X	X					X		X				X						
		0.50	slightly gravelly clayey sand	21-03808	X		X							X		X				X						
		1.20	clayey gravelly sand	21-03809	X		X							X		X				X				X		

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (C10 - C40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
Count	107	189	189	134	189	0	188	74	69	0	0	0	0	189	0	189	0	0	0	8	0	0	0	88	0	0
111	TP AB024	0.20	Topsoil slightly gravelly clayey sand	21-03846	X		X	X	X					X		X										
		0.60	gravelly clayey sand	21-03846	X		X							X		X										
	TP AB026	0.20	Topsoil slightly gravelly clayey sand	21-03846	X		X		X					X		X								X		
		0.60	gravelly clayey sand	21-03846	X		X	X						X		X										
112	BH AB039	1.20	silty clayey sand	21-03845	X		X							X		X								X		
113	TP AB025	0.20	Topsoil slightly clayey sand	21-04014	X		X	X	X					X		X										
		0.60	gravelly clayey sand	21-04014	X		X							X		X								X		
114	BH AB021	0.20	Topsoil slightly clayey sand	21-04003	X		X	X	X					X		X										
		1.20	slightly gravelly sand	21-04003	X		X							X		X								X		
115	TP AB023	0.60	sandy slightly gravelly clay	21-04013	X		X							X		X								X		
		1.50	sandy slightly gravelly clay		X		X							X		X										
117	BH AB029	0.20	topsoil - slightly clayey sand	21-04004	X		X	X	X					X		X										
		0.50	slightly clayey gravelly sand	21-04004	X		X							X		X								X		
118	TP AB051	0.60	Slightly gravelly clayey sand	21-04006	X		X							X		X								X		
		1.30	Slightly gravelly clayey sand		X		X							X		X										
	TP AB053	0.20	Topsoil - slightly gravelly clayey sand		X		X	X	X					X		X										
		1.50	sandy gravelly clay		X		X							X		X								X		
	TP AB054	0.20	Topsoil - slightly gravelly clayey sand		X		X	X	X					X		X								X		
		0.60	slightly gravelly clayey sand		X		X							X		X										
119	BH AB022	0.20	Topsoil - slightly gravelly sandy CLAY	21-04022	X		X	X	X					X		X										
		0.50	slightly gravelly slightly sandy clay	21-04002	X		X							X		X								X		
120	BH AB030	0.30	MG - very gravelly silty sand	21-04009	X		X	X	X					X		X								X		
		0.50	very gravelly silty sand	21-04009	X		X							X		X										
121	BH AB023	0.50	gravelly silty sand	21-04023	X		X							X		X								X		
122	TP AB055	0.20	Topsoil - slightly gravelly clayey sand	21-04012	X		X	X	X					X		X								X		
		0.80	slightly gravelly very clayey sand		X		X							X		X										
	TP AB056	0.20	Topsoil - gravelly clayey sand		X		X	X	X					X		X										
		0.50	slightly gravelly sandy clay		X		X							X		X								X		
123	TP AB047	0.60	slightly gravelly clayey sand	21-04017	X		X							X		X										
		1.50	slightly gravelly sandy clay		X		X							X		X								X		
	TP AB050	0.20	topsoil - slightly gravelly clayey sand		X		X	X	X					X		X										
		0.60	slightly gravelly clayey sand		X		X							X		X								X		
124	BH AB024	0.50	Sand with rare rootlets	21-04011	X		X							X		X								X		
	BH AB031	0.20	topsoil - slightly gravelly sand	21-04011	X		X	X	X					X		X								X		
		0.50	slightly clayey gravelly sand	21-04011	X		X							X		X										
	BH AB032	0.20	topsoil - slightly clayey slightly gravelly sand	21-04011	X		X	X	X					X		X										
		0.50	slightly gravelly clayey sand	21-04011	X		X							X		X								X		
125	TP AB044	0.70	gravelly clayey fine to coarse SAND	21-04016	X		X							X		X								X		
		1.60	slightly gravelly sandy CLAY		X		X							X		X										
	TP AB045	0.20	topsoil slightly gravelly sandy CLAY		X		X	X	X					X		X										
		1.00	slightly gravelly very clayey fine to coarse SAND		X		X							X		X								X		
126	BH AB012	0.50	slightly sandy slightly gravelly CLAY	21-04033	X		X	X						X		X								X		
127	BH AB012A	1.20	slightly clayey gravelly sand	21-04024	X		X							X		X										
128	BH AB025	0.20	clayey fine to coarse SAND	21-04164	X		X	X	X					X		X								X		
129	BH AB046	1.00	Slightly sandy gravelly clay	21-04153	X		X							X		X								X		
		3.00	slightly gravelly sandy clay		X		X							X		X										
	BH AB048	0.50	slightly gravelly clayey fine to coarse SAND		X		X							X		X										
		1.00	gravelly sandy CLAY		X		X							X		X								X		
	BHAB049	0.20	slightly gravelly clayey fine to coarse SAND		X		X	X	X					X		X								X		
		1.00	slightly gravelly sandy CLAY		X		X							X		X										
130	BH AB038	0.20	topsoil - slightly clayey slightly gravelly sand	21-04165	X		X	X	X					X		X										
		0.50	slightly gravelly clayey sand	21-04165	X		X							X		X										
131	BH AB033	0.50	slihtly gravelly sand	21-04166	X		X							X		X								X		
		1.20	slightly gravelly clayey sand.	21-04166	X		X							X		X										
132	BH AB035	0.20	topsoil - slightly clayey sand	21-04155	X		X	X	X					X		X										
		0.50	slightly gravelly sand	21-04155	X		X							X		X										
134	BH AB034	0.50	slightly gravelly sand	21-04161	X		X							X		X										

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (C10 - C40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
Count	107	189	189	134	189	0	188	74	69	0	0	0	0	189	0	189	0	0	0	8	0	0	0	88	0	0
135	BH AB046	0.20	topsoil - slightly clayey slightly gravelly sand	21-04170	X		X	X	X					X		X										
	BH AB046	1.00	very clayey slightly gravelly sand		X		X							X		X								X		
	BH AB047	0.50	slightly gravelly clayey sand.		X		X							X		X								X		
	BH AB047	1.00	slightly gravelly clayey sand.		X		X							X		X										
136	BH AB048	0.50	slightly gravelly fine to coarse SAND	21-04254	X		X							X		X								X		
137	BH AB037	0.20	Topsoil slightly silty slightly gravelly sand	21-04335	X		X	X	X					X		X										
		0.50	slightly gravelly fine to coarse SAND		X		X							X		X										
138	TP AB borrowpit01	0.20	Topsoil	21-04357	X		X	X	X					X		X								X		
	TP AB borrowpit02	0.50	SAND		X		X	X						X		X								X		
	TP AB borrowpit03	0.75	SAND		X		X	X						X		X								X		
139	TP AB borrowpit 04	0.50	slightly gravelly clayey sand	21-04487	X		X	X						X		X								X		
140	TP AB002	0.20	Topsoil - clayey slightly gravelly sand	21-04381	X		X	X	X					X		X										
		0.50	clayey gravelly sand		X		X							X		X								X		
141	TP AB004	0.10	Topsoil	21-04488	X		X	X	X					X		X										
		1.00	sandy gravelly clay		X		X							X		X								X		
142	BH AB036	0.50	slightly gravelly sand	21-04382	X		X							X		X										
143	TP AB057	0.20	Topsoil - slightly clayey gtavelly sand	21-04478	X		X	X	X					X		X										
		1.50	sandy gravelly clay		X		X							X		X								X		
	TP AB069	0.50	sandy gravelly clay		X		X							X		X								X		
		1.50	sandy gravelly clay		X		X							X		X										

D.3 KTB Human Health and Controlled Waters Screeners

GE A4.1
A66 Temple Sowerby to Appleby (Kirkby Thore)
Exceedances Summary

Strata Selected:	MG
%SOM	
SOM (from TOC)	
SOM (from FOC)	

Contaminant	Number of samples Tested	Min	Max	Location of Max	Strate of Max	1% SOM						2.5% SOM						6% SOM					
						Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)
Metals																							
Barium	95	4	172	H KTB016	0	41	0	91	0	0	0	41	0	91	0	0	0	4	0	91	0	0	0
Inorganics																							
pH	90	5.2	8.49	KTB016(B	0	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Lab No.																							
Sample ID													TP KTB010	TP KTB010	TP KTB011	TP KTB011	TP KTB013	TP KTB013	TP KTB014	TP KTB014	TP KTB003	TP KTB003	TP KTB005	TP KTB005
Depth													0.50	2.50	0.50	2.00	0.20	2.50	0.20	3.50	0.20	0.50	0.20	2.50
Strata																								
Sample Type																								
Date													23/02/2021	23/02/2021	22/02/2021	22/02/2021	23/02/2021	23/02/2021	22/02/2021	22/02/2021	18/02/2021	18/02/2021	18/02/2021	18/02/2021
Sample Matrix Code	**No. of Samples Tested**	**No. of Exceedances**	**Minimum**	**Maximum**	**Location of Max**	**Depth of Max**	**Strata**	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM												
Metals																								
Antimony	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	3090.00	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	95	0	LOD	7.00	BH KTB014	1.00	0	0	mg/kg	C4SL	0	170.00	1.00	1.00	5.00	<1	2.00	2.00	<1	2.00	2.00	3.00	3.00	<1
Barium	95	0	4.00	172.00	BH KTB016A	0.30	0	0	mg/kg	AtkinsAtrisk	0	5770.00	71.00	103.00	45.00	4.00	52.00	88.00	42.00	60.00	64.00	45.00	46.00	10.00
Beryllium	95	0	LOD	1.20	BH KTB007	1.50	0	0	mg/kg	S4UL	0	63.00	0.70	0.90	<0.5	<0.5	<0.5	0.60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron, Water Soluble	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	95	0	LOD	0.90	TP KTB017	0.70	0	0	mg/kg	C4SL	0	880.00	<0.5	0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	95	0	4.00	34.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	33000.00	21.00	26.00	23.00	7.00	12.00	16.00	10.00	12.00	14.00	17.00	10.00	4.00
Chromium, Hexavalent	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	95	0	LOD	45.00	TP KTB010	2.50	0	0	mg/kg	S4UL	0	44000.00	10.00	45.00	10.00	<1	9.00	12.00	7.00	9.00	8.00	8.00	9.00	<1
Lead	95	0	2.00	37.00	BH KTB010	1.00	0	0	mg/kg	C4SL	0	1300.00	10.00	12.00	9.00	3.00	25.00	10.00	16.00	7.00	24.00	11.00	28.00	2.00
Mercury	95	0	LOD	0.34	TP KTB010	2.50	0	0	mg/kg	S4UL	0	30.00	<0.17	0.34	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	95	0	LOD	1.00	TP KTB010	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel	95	0	LOD	29.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	3400.00	15.00	28.00	15.00	<1	7.00	24.00	5.00	12.00	8.00	13.00	6.00	2.00
Selenium	95	0	LOD	2.00	TP KTB017	0.70	0	0	mg/kg	S4UL	0	1800.00	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	95	0	7.00	35.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	5000.00	22.00	25.00	22.00	9.00	18.00	18.00	18.00	12.00	21.00	21.00	14.00	7.00
Zinc	95	0	LOD	64.00	BH KTB016A	0.30	0	0	mg/kg	S4UL	0	170000.00	18.00	39.00	21.00	<5	29.00	30.00	26.00	18.00	34.00	29.00	34.00	<5
Inorganics																								
pH	90	54	5.20	8.49	TP KTB016(BRE)	0.80	0	0	pH Units	-	0	7.0-9.0	7.30	0.00	7.27	7.14	6.21	0.00	6.30	0.00	6.56	6.76	6.37	6.90
Cyanide, Free	51	0	LOD					0	0	AtkinsAtrisk	0	34.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Soil Organic Matter (SOM)	78	0	LOD	7.60	TP KTB013	0.20	0	0	%	-	0		0.60		0.30	<0.1	7.60		1.90		1.90	0.60	2.20	<0.1
Organic matter (TOC)	92	0	LOD	5.50	BH KTB010	1.00	0	0	0	-	0		0.34	0.16	0.16	<0.03	4.43		1.13	0.10	1.12	0.36	1.24	<0.03
Total Organic Carbon (TOC)	1			5.50																				
Sulphide	71	0	LOD					0	0	-	0		<5		<5	<5	<5		<5		<5	<5	<5	<5
Sulphate	10			68.00																				
Asbestos in Soil	40	0			TP KTB010	2.50	0	0	0	-	0	Detected	NAD		NAD		NAD		NAD		NAD	NAD	NAD	NAD
Asbestos Quantification	40	0	#NUM!	LOD	TP KTB010	2.50	0	0	0	-	0	Detected	N/A		N/A		N/A		N/A		N/A	N/A	N/A	N/A
Phenols																								
Total Phenols	58	0	LOD	LOD	BH KTB017	0.30	0	0	mg/kg	S4UL	0	760.00	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Petroleum Hydrocarbons																								
Aliphatic C5-C6	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	95	0	LOD	2.00	BH KTB023	0.20	0	0	mg/kg	S4UL	0	450000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	S4UL	0	450000.00	<1	1.00	<1	<1	4.00	<1	12.00	<1	2.00	<1	2.00	<1
Aliphatic C5-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	1.00	<1	<1	4.00	<1	13.00	<1	2.00	<1	2.00	<1
Aromatic C5-C7	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	95	0	LOD	1.00	BH KTB021 minin	0.20	0	0	mg/kg	S4UL	0	7200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	95	0	LOD	2.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	95	0	LOD	3.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	10000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	95	0	LOD	7.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7600.00	<1	<1	<1	<1	<1	<1	2.00	<1	<1	<1	<1	<1
Aromatic C21-C35	95	0	LOD	32.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7800.00	<1	<1	<1	<1	5.00	<1	17.00	<1	2.00	<1	3.00	<1
Aromatic C5-C35	95	0	LOD	40.00	BH KTB007	0.30	0	0	mg/kg	-	0		<1	<1	<1	<1	5.00	<1	20.00	<1	2.00	<1	3.00	<1
TPH Ali/Aro Total	95	0	LOD	69.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	1.00	<1	<1	8.00	<1	32.00	<1	4.00	<1	5.00	<1
BTEX																								
Benzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																								
Naphthalene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	95	0	LOD	0.02	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	95	0	LOD	0.05	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	95	0	LOD	0.03	BH KTB010	0.30	0	0	mg/kg	S4UL	0	20000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.06	<0.03	0.03	<0.03	<0.03	<0.03
Anthracene	95	0	LOD	0.09	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150000.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	95	0	LOD	1.50	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6300.00	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.20	<0.08	0.12	<0.08	<0.08	<0.08
Pyrene	95	0	LOD	1.23	BH KTB010	0.30	0	0	mg/kg	S4UL	0	15000.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.17	<0.07	0.10	<0.07	<0.07	<0.07
Benzo(a)anthracene	95	0	LOD	0.62	BH KTB010	0.30	0	0	mg/kg	S4UL	0	49.00	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.11	<0.04	0.06	<0.04	<0.04	<0.04
Chrysene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	S4UL	0	93.00	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.12	<0.06	0.08	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	95	0	LOD	0.83	BH KTB010	0.30	0	0	mg/kg	S4UL	0	13.00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	0.09	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	95	0	LOD	0.30	BH KTB010	0.30	0	0	mg/kg	S4UL	0	370.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	C4SL	0	21.00	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.12	<0.04	0.08	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.08	<0.03	0.04	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	95	0	LOD	0.11	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	95	0	LOD	0.42	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1400.00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	95	0	LOD	7.56	BH KTB010	0.30	0	0	mg/kg	-	0		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	1.06	<0.08	0.60	<0.08	<0.08	<0.08

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM
Metals												
Antimony	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	3090.00
Arsenic	95	0	LOD	7.00	BH KTB014	1.00	0	0	mg/kg	C4SL	0	170.00
Barium	95	0	4.00	172.00	BH KTB016A	0.30	0	0	mg/kg	AtkinsAtrisk	0	5770.00
Beryllium	95	0	LOD	1.20	BH KTB007	1.50	0	0	mg/kg	S4UL	0	63.00
Boron, Water Soluble	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000
Cadmium	95	0	LOD	0.90	TP KTB017	0.70	0	0	mg/kg	C4SL	0	880.00
Chromium	95	0	4.00	34.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	33000.00
Chromium, Hexavalent	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00
Copper	95	0	LOD	45.00	TP KTB010	2.50	0	0	mg/kg	S4UL	0	44000.00
Lead	95	0	2.00	37.00	BH KTB010	1.00	0	0	mg/kg	C4SL	0	1300.00
Mercury	95	0	LOD	0.34	TP KTB010	2.50	0	0	mg/kg	S4UL	0	30.00
Molybdenum	95	0	LOD	1.00	TP KTB010	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00
Nickel	95	0	LOD	29.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	3400.00
Selenium	95	0	LOD	2.00	TP KTB017	0.70	0	0	mg/kg	S4UL	0	1800.00
Vanadium	95	0	7.00	35.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	5000.00
Zinc	95	0	LOD	64.00	BH KTB016A	0.30	0	0	mg/kg	S4UL	0	170000.00
Inorganics												
pH	90	54	5.20	8.49	TP KTB016(BRE)	0.80	0	0	pH Units	-	0	7.0-9.0
Cyanide, Free	51	0	LOD					0	0	AtkinsAtrisk	0	34.00
Soil Organic Matter (SOM)	78	0	LOD	7.60	TP KTB013	0.20	0	0	%	-	0	
Organic matter (TOC)	92	0	LOD	5.50	BH KTB010	1.00	0	0	0	-	0	
Fractional Organic Carbon (FOC)	19			3.20						-		
Sulphide	71	0	LOD					0	0	-	0	
Nitrate	19			98.00						-		
Asbestos in Soil	40	0			TP KTB010	2.50	0	0	0	-	0	Detected
Asbestos Quantification	40	0	#NUM!	LOD	TP KTB010	2.50	0	0	0	-	0	Detected
Phenols												
Total Phenols	58	0	LOD	LOD	BH KTB017	0.30	0	0	mg/kg	S4UL	0	760.00
Petroleum Hydrocarbons												
Aliphatic C5-C6	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00
Aliphatic C6-C8	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00
Aliphatic C8-C10	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00
Aliphatic C10-C12	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00
Aliphatic C12-C16	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00
Aliphatic C16-C21	95	0	LOD	2.00	BH KTB023	0.20	0	0	mg/kg	S4UL	0	450000.00
Aliphatic C21-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	S4UL	0	450000.00
Aliphatic C5-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	-	0	
Aromatic C5-C7	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00
Aromatic C7-C8	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00
Aromatic C8-C10	95	0	LOD	1.00	3H KTB021 minin	0.20	0	0	mg/kg	S4UL	0	7200.00
Aromatic C10-C12	95	0	LOD	2.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	9200.00
Aromatic C12-C16	95	0	LOD	3.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	10000.00
Aromatic C16-C21	95	0	LOD	7.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7600.00
Aromatic C21-C35	95	0	LOD	32.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7800.00
Aromatic C5-C35	95	0	LOD	40.00	BH KTB007	0.30	0	0	mg/kg	-	0	
TPH Ali/Aro Total	95	0	LOD	69.00	BH KTB018	0.30	0	0	mg/kg	-	0	
BTEX												
Benzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00
Toluene	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00
Ethylbenzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
O-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
M-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
P-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
Methyl Tert-Butyl Ether (MTBE)	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00
PAHs												
Naphthalene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00
Acenaphthylene	95	0	LOD	0.02	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00
Acenaphthene	95	0	LOD	0.05	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00
Fluorene	95	0	LOD	0.03	BH KTB010	0.30	0	0	mg/kg	S4UL	0	20000.00
Phenanthrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6200.00
Anthracene	95	0	LOD	0.09	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150000.00
Fluoranthene	95	0	LOD	1.50	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6300.00
Pyrene	95	0	LOD	1.23	BH KTB010	0.30	0	0	mg/kg	S4UL	0	15000.00
Benzo(a)anthracene	95	0	LOD	0.62	BH KTB010	0.30	0	0	mg/kg	S4UL	0	49.00
Chrysene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	S4UL	0	93.00
Benzo(b)fluoranthene	95	0	LOD	0.83	BH KTB010	0.30	0	0	mg/kg	S4UL	0	13.00
Benzo(k)fluoranthene	95	0	LOD	0.30	BH KTB010	0.30	0	0	mg/kg	S4UL	0	370.00
Benzo(a)pyrene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	C4SL	0	21.00
Indeno(1,2,3-c,d)pyrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150.00
Dibenzo(a,h)anthracene	95	0	LOD	0.11	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1.10
Benzo(g,h,i)perylene	95	0	LOD	0.42	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1400.00
PAH - USEPA 16, Total	95	0	LOD	7.56	BH KTB010	0.30	0	0	mg/kg	-	0	

Lab No.												
Sample ID	TP KTB009	TP KTB009	BH KTB015	BH KTB015	BH KTB022	BH KTB022	BH KT028	BH KTB028	BH KTB002	BH KTB002	BH KTB014	BH KTB014
Depth	0.40	0.80	0.20	0.50	0.10	1.00	0.30	1.00	0.50	1.50	0.10	1.00
Strata												
Sample Type												
Date	19/02/2021	19/02/2021	18/02/2021	18/02/2021	17/02/2021	17/02/2021	18/02/2021	18/02/2021	23/02/2021	23/02/2021	19/02/2021	19/02/2021
Metals												
Antimony	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	<1	<1	<1	2.00	3.00	<1	<1	1.00	3.00	<1	2.00	7.00
Barium	60.00	100.00	58.00	48.00	68.00	24.00	33.00	22.00	37.00	26.00	55.00	32.00
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron, Water Soluble	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	10.00	8.00	12.00	18.00	15.00	11.00	9.00	8.00	13.00	8.00	13.00	11.00
Chromium, Hexavalent	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	9.00	4.00	8.00	10.00	9.00	6.00	6.00	4.00	8.00	3.00	8.00	7.00
Lead	21.00	8.00	18.00	10.00	21.00	5.00	12.00	6.00	10.00	5.00	18.00	30.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1
Nickel	5.00	6.00	7.00	14.00	11.00	21.00	7.00	8.00	12.00	5.00	7.00	8.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	13.00	10.00	16.00	18.00	23.00	9.00	12.00	10.00	15.00	10.00	17.00	13.00
Zinc	33.00	14.00	29.00	23.00	42.00	37.00	23.00	19.00	21.00	10.00	30.00	16.00
Inorganics												
pH	7.12	7.22	6.52	7.17	6.76	7.24	6.73	7.68	7.25	0.00	6.10	6.72
Cyanide, Free	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Soil Organic Matter (SOM)	1.90	0.50	1.10	0.30	2.60	0.20	1.20	0.40	0.50		1.80	0.40
Organic matter (TOC)	1.05	0.31	0.66	0.20	1.49	0.13	0.73	0.24	0.29		1.06	0.23
Fractional Organic Carbon (FOC)												
Sulphide	<5	<5	<5	<5	<5	<5	<5	<5	<5		<5	<5
Nitrate												
Asbestos in Soil	NAD	NAD	NAD	NAD	NAD		NAD		NAD		NAD	
Asbestos Quantification	N/A	N/A	N/A	N/A	N/A		N/A		N/A		N/A	
Phenols												
Total Phenols	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Petroleum Hydrocarbons												
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	6.00	<1	2.00	<1	6.00	<1	2.00	2.00	3.00	6.00	3.00	<1
Aliphatic C5-C35	6.00	<1	2.00	<1	6.00	<1	2.00	2.00	3.00	6.00	3.00	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1
Aromatic C21-C35	6.00	<1	2.00	1.00	9.00	<1	2.00	2.00	1.00	<1	5.00	<1
Aromatic C5-C35	6.00	<1	2.00	1.00	10.00	<1	2.00	2.00	1.00	<1	5.00	<1
TPH Ali/Aro Total	12.00	<1	4.00	1.00	16.00	<1	3.00	4.00	4.00	6.00	9.00	<1
BTEX												
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs												
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	<0.03	<0.03	0.03	0.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	<0.08	<0.08	<0.08	0.20	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	<0.07	<0.07	<0.07	<0.07	0.16	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	<0.04	<0.04	<0.04	<0.04	0.11	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	<0.06	<0.06	<0.06	<0.06	0.12	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	0.15	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	<0.03	<0.03	<0.03	<0.03	0.07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	<0.08	<0.08	<0.08	<0.08	1.11	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Lab No.																								
Sample ID													TP KTB018	TP KTB018	TP KTB019	TP KTB019	BH KTB013	BH KTB013	BH KTB017	BH KTB017	BH KTB017	BH KTB019	BH KTB019	BH KTB011
Depth													0.20	0.50	0.20	2.00	0.50	1.20	0.30	0.50	1.20	0.30	1.20	0.10
Strata																								
Sample Type																								
Date													01-Mar-21	01-Mar-21	01-Mar-21	01-Mar-21	25-Feb-21	25-Feb-21	26-Feb-21	26-Feb-21	26-Feb-21	03-Mar-21	03-Mar-21	04-Mar-21
Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM												
Metals																								
Antimony	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	3090.00	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	95	0	LOD	7.00	BH KTB014	1.00	0	0	mg/kg	C4SL	0	170.00	<1	<1	4.00	2.00	<1	<1	<1	2.00	3.00	4.00	<1	1.00
Barium	95	0	4.00	172.00	BH KTB016A	0.30	0	0	mg/kg	AtkinsAtrisk	0	5770.00	60.00	24.00	37.00	46.00	49.00	52.00	49.00	35.00	33.00	57.00	31.00	60.00
Beryllium	95	0	LOD	1.20	BH KTB007	1.50	0	0	mg/kg	S4UL	0	63.00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron, Water Soluble	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	95	0	LOD	0.90	TP KTB017	0.70	0	0	mg/kg	C4SL	0	880.00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.50
Chromium	95	0	4.00	34.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	33000.00	9.00	7.00	13.00	13.00	16.00	13.00	9.00	9.00	14.00	15.00	9.00	19.00
Chromium, Hexavalent	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	95	0	LOD	45.00	TP KTB010	2.50	0	0	mg/kg	S4UL	0	44000.00	9.00	3.00	10.00	10.00	5.00	9.00	9.00	6.00	6.00	9.00	4.00	13.00
Lead	95	0	2.00	37.00	BH KTB010	1.00	0	0	mg/kg	C4SL	0	1300.00	24.00	5.00	20.00	7.00	5.00	13.00	21.00	10.00	10.00	22.00	4.00	28.00
Mercury	95	0	LOD	0.34	TP KTB010	2.50	0	0	mg/kg	S4UL	0	30.00	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	95	0	LOD	1.00	TP KTB010	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel	95	0	LOD	29.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	3400.00	5.00	3.00	7.00	13.00	8.00	6.00	5.00	5.00	10.00	7.00	7.00	8.00
Selenium	95	0	LOD	2.00	TP KTB017	0.70	0	0	mg/kg	S4UL	0	1800.00	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1
Vanadium	95	0	7.00	35.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	5000.00	14.00	10.00	16.00	15.00	18.00	16.00	12.00	17.00	19.00	20.00	10.00	31.00
Zinc	95	0	LOD	64.00	BH KTB016A	0.30	0	0	mg/kg	S4UL	0	170000.00	30.00	14.00	30.00	23.00	12.00	18.00	27.00	16.00	15.00	34.00	9.00	40.00
Inorganics																								
pH	90	54	5.20	8.49	TP KTB016(BRE)	0.80	0	0	pH Units	-	0	7.0-9.0	6.68	6.50	6.79	6.32	6.63	6.49	6.50	6.73	6.77	5.86	7.32	5.95
Cyanide, Free	51	0	LOD					0	0	AtkinsAtrisk	0	34.00	<1	<1	<1	<1	<1	<1						<1
Soil Organic Matter (SOM)	78	0	LOD	7.60	TP KTB013	0.20	0	0	%	-	0		1.30	0.30	2.20	<0.1	0.50	1.20	1.80	0.70	0.40	1.80	0.10	2.40
Organic matter (TOC)	92	0	LOD	5.50	BH KTB010	1.00	0	0	-	-	0		0.80	0.15	1.27	0.06	0.28	0.71	1.04	0.42	0.24	1.03	0.06	1.38
Reactive Sulphide (as S)																								
Sulphide	71	0	LOD					0	0	-	0		<5	<5	<5	<5	<5	<5	11.00	7.00	<5	5.00	<5	<5
Mineralogy																								
Asbestos in Soil	40	0			TP KTB010	2.50	0	0	0	-	0	Detected	NAD	NAD	NAD									NAD
Asbestos Quantification	40	0	#NUM!	LOD	TP KTB010	2.50	0	0	0	-	0	Detected	N/A	N/A	N/A									N/A
Phenols																								
Total Phenols	58	0	LOD	LOD	BH KTB017	0.30	0	0	mg/kg	S4UL	0	760.00	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2						<0.2
Petroleum Hydrocarbons																								
Aliphatic C5-C6	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	95	0	LOD	2.00	BH KTB023	0.20	0	0	mg/kg	S4UL	0	450000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	S4UL	0	450000.00	4.00	<1	5.00	1.00	<1	<1	3.00	<1	<1	5.00	<1	4.00
Aliphatic C5-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	-	0		4.00	<1	5.00	1.00	<1	<1	3.00	<1	<1	5.00	<1	4.00
Aromatic C5-C7	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	95	0	LOD	1.00	BH KTB021 minin	0.20	0	0	mg/kg	S4UL	0	7200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	95	0	LOD	2.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	95	0	LOD	3.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	10000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	95	0	LOD	7.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7600.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C21-C35	95	0	LOD	32.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7800.00	5.00	<1	5.00	<1	<1	<1	4.00	<1	<1	5.00	<1	4.00
Aromatic C5-C35	95	0	LOD	40.00	BH KTB007	0.30	0	0	mg/kg	-	0		5.00	<1	5.00	<1	<1	<1	4.00	<1	<1	5.00	<1	4.00
TPH Ali/Aro Total	95	0	LOD	69.00	BH KTB018	0.30	0	0	mg/kg	-	0		9.00	<1	9.00	1.00	<1	<1	7.00	<1	<1	10.00	<1	7.00
BTEX																								
Benzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																								
Naphthalene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	95	0	LOD	0.02	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	95	0	LOD	0.05	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	95	0	LOD	0.03	BH KTB010	0.30	0	0	mg/kg	S4UL	0	20000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	95	0	LOD	0.09	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150000.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	95	0	LOD	1.50	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6300.00	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	95	0	LOD	1.23	BH KTB010	0.30	0	0	mg/kg	S4UL	0	15000.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	95	0	LOD	0.62	BH KTB010	0.30	0	0	mg/kg	S4UL	0	49.00	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	S4UL	0	93.00	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	95	0	LOD	0.83	BH KTB010	0.30	0	0	mg/kg	S4UL	0	13.00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	95	0	LOD	0.30	BH KTB010	0.30	0	0	mg/kg	S4UL	0	370.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	C4SL	0	21.00	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	95	0	LOD	0.11	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	95	0	LOD	0.42	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1400.00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	95	0	LOD	7.56	BH KTB010	0.30	0	0	mg/kg	-	0		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Lab No.																							
Sample ID												BH KTB011	H KTB021 minir	H KTB021 minir	H KTB021 minir	TP KTB022	TP KTB022	TP KTB022	TP KTB024	TP KTB024	TP KTB024	TP KTB023	TP KTB023
Depth												1.00	0.20	0.50	0.90	0.20	0.60	2.90	0.70	1.70	2.60	0.20	0.60
Strata																							
Sample Type																							
Date												04-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21
Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM											
Metals																							
Antimony	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	3090.00	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	95	0	LOD	7.00	BH KTB014	1.00	0	0	mg/kg	C4SL	0	170.00	<1	<1	<1	1.00	2.00	2.00	3.00	1.00	3.00	3.00	2.00	4.00
Barium	95	0	4.00	172.00	BH KTB016A	0.30	0	0	mg/kg	AtkinsAtrisk	0	5770.00	31.00	105.00	139.00	23.00	39.00	33.00	48.00	49.00	65.00	61.00	50.00	60.00
Beryllium	95	0	LOD	1.20	BH KTB007	1.50	0	0	mg/kg	S4UL	0	63.00	<0.5	<0.5	0.60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.60	<0.5	<0.5
Boron, Water Soluble	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	95	0	LOD	0.90	TP KTB017	0.70	0	0	mg/kg	C4SL	0	880.00	<0.5	0.50	<0.5	<0.5	<0.5	<0.5	0.60	<0.5	0.70	0.70	<0.5	0.80
Chromium	95	0	4.00	34.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	33000.00	11.00	21.00	25.00	9.00	12.00	16.00	15.00	16.00	15.00	16.00	12.00	18.00
Chromium, Hexavalent	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	95	0	LOD	45.00	TP KTB010	2.50	0	0	mg/kg	S4UL	0	44000.00	7.00	10.00	7.00	5.00	8.00	5.00	6.00	4.00	8.00	8.00	8.00	7.00
Lead	95	0	2.00	37.00	BH KTB010	1.00	0	0	mg/kg	C4SL	0	1300.00	14.00	27.00	13.00	5.00	22.00	7.00	7.00	7.00	8.00	9.00	26.00	8.00
Mercury	95	0	LOD	0.34	TP KTB010	2.50	0	0	mg/kg	S4UL	0	30.00	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	95	0	LOD	1.00	TP KTB010	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel	95	0	LOD	29.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	3400.00	6.00	12.00	15.00	8.00	6.00	11.00	13.00	11.00	14.00	15.00	6.00	13.00
Selenium	95	0	LOD	2.00	TP KTB017	0.70	0	0	mg/kg	S4UL	0	1800.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	95	0	7.00	35.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	5000.00	15.00	31.00	30.00	10.00	19.00	16.00	14.00	15.00	16.00	17.00	19.00	20.00
Zinc	95	0	LOD	64.00	BH KTB016A	0.30	0	0	mg/kg	S4UL	0	170000.00	24.00	58.00	35.00	14.00	34.00	17.00	21.00	13.00	27.00	25.00	34.00	17.00
Inorganics																								
pH	90	54	5.20	8.49	TP KTB016(BRE	0.80	0	0	pH Units	-	0	7.0-9.0	6.20	7.22	7.05	7.27	6.30	6.68	7.30	7.16	8.29	8.39	6.20	6.92
Cyanide, Free	51	0	LOD					0	0	AtkinsAtrisk	0	34.00		<1	<1	<1	<1	<1		<1			<1	<1
Soil Organic Matter (SOM)	78	0	LOD	7.60	TP KTB013	0.20	0	0	%	-	0		0.80	2.90	1.10	0.20	4.20	0.50	<0.1	0.20	0.20	0.20	3.50	0.20
Organic matter (TOC)	92	0	LOD	5.50	BH KTB010	1.00	0	0	0	-	0		0.47	1.70	0.61	0.12	2.45	0.26	0.05	0.14	0.09	0.09	2.04	0.12
Water Soluble Sulphate (2:1)	0																							
Sulphide	71	0	LOD					0	0	-	0		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Volatile	112																							
Asbestos in Soil	40	0			TP KTB010	2.50	0	0	0	-	0	Detected		NAD	NAD	NAD	NAD	NAD		NAD			NAD	NAD
Asbestos Quantification	40	0	#NUM!	LOD	TP KTB010	2.50	0	0	0	-	0	Detected		N/A	N/A	N/A	N/A	N/A		N/A			N/A	N/A
Phenols																								
Total Phenols	58	0	LOD	LOD	BH KTB017	0.30	0	0	mg/kg	S4UL	0	760.00		<0.2	<0.2	<0.2	<0.2	<0.2		<0.2			<0.2	<0.2
Petroleum Hydrocarbons																								
Aliphatic C5-C6	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	95	0	LOD	2.00	BH KTB023	0.20	0	0	mg/kg	S4UL	0	450000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	S4UL	0	450000.00	<1	9.00	1.00	<1	13.00	<1	<1	<1	<1	<1	10.00	<1
Aliphatic C5-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	9.00	1.00	<1	13.00	<1	<1	<1	<1	<1	10.00	<1
Aromatic C5-C7	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	95	0	LOD	1.00	BH KTB021 minir	0.20	0	0	mg/kg	S4UL	0	7200.00	<1	1.00	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	95	0	LOD	2.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	95	0	LOD	3.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	10000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	95	0	LOD	7.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7600.00	<1	1.00	<1	<1	1.00	<1	<1	<1	<1	<1	1.00	<1
Aromatic C21-C35	95	0	LOD	32.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7800.00	<1	10.00	2.00	<1	10.00	<1	<1	<1	<1	<1	10.00	<1
Aromatic C5-C35	95	0	LOD	40.00	BH KTB007	0.30	0	0	mg/kg	-	0		<1	12.00	2.00	<1	13.00	<1	<1	<1	<1	<1	12.00	<1
TPH Ali/Aro Total	95	0	LOD	69.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	21.00	3.00	<1	26.00	<1	<1	<1	<1	<1	22.00	<1
BTEX																								
Benzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																								
Naphthalene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	95	0	LOD	0.02	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	95	0	LOD	0.05	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	95	0	LOD	0.03	BH KTB010	0.30	0	0	mg/kg	S4UL	0	20000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6200.00	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	95	0	LOD	0.09	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150000.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	95	0	LOD	1.50	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6300.00	<0.08	0.16	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	95	0	LOD	1.23	BH KTB010	0.30	0	0	mg/kg	S4UL	0	15000.00	<0.07	0.15	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	95	0	LOD	0.62	BH KTB010	0.30	0	0	mg/kg	S4UL	0	49.00	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	S4UL	0	93.00	<0.06	0.15	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	95	0	LOD	0.83	BH KTB010	0.30	0	0	mg/kg	S4UL	0	13.00	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	95	0	LOD	0.30	BH KTB010	0.30	0	0	mg/kg	S4UL	0	370.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	C4SL	0	21.00	<0.04	0.12	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150.00	<0.03	0.12	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	95	0	LOD	0.11	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	95	0	LOD	0.42	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1400.00	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	95	0	LOD	7.56	BH KTB010	0.30	0	0	mg/kg	-	0		<0.08	1.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Lab No.																								
Sample ID													TP KTB023	BH KTB027	BH KTB027	BH KTB016A	BH KTB016A	BH KTB023	BH KTB023	BH KTB003	BH KTB003	BH KTB006	BH KTB006	BH KTB012
Depth													1.60	0.30	1.50	0.30	0.50	0.20	0.60	0.50	1.50	0.10	1.10	0.10
Strata																								
Sample Type																								
Date													02-Mar-21	01-Mar-21	01-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	02-Mar-21	25-Feb-21	25-Feb-21	04-Mar-21	04-Mar-21	02-Mar-21
Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM												
Metals																								
Antimony	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	3090.00	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	95	0	LOD	7.00	BH KTB014	1.00	0	0	mg/kg	C4SL	0	170.00	4.00	<1	2.00	4.00	3.00	3.00	3.00	4.00	4.00	2.00	2.00	5.00
Barium	95	0	4.00	172.00	BH KTB016A	0.30	0	0	mg/kg	AtkinsAtrisk	0	5770.00	68.00	67.00	35.00	172.00	80.00	40.00	65.00	48.00	66.00	52.00	27.00	106.00
Beryllium	95	0	LOD	1.20	BH KTB007	1.50	0	0	mg/kg	S4UL	0	63.00	0.60	<0.5	<0.5	<0.5	0.60	<0.5	0.70	<0.5	<0.5	<0.5	<0.5	<0.5
Boron, Water Soluble	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	95	0	LOD	0.90	TP KTB017	0.70	0	0	mg/kg	C4SL	0	880.00	0.80	<0.5	0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	95	0	4.00	34.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	33000.00	17.00	12.00	12.00	13.00	22.00	16.00	23.00	14.00	17.00	16.00	9.00	18.00
Chromium, Hexavalent	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	95	0	LOD	45.00	TP KTB010	2.50	0	0	mg/kg	S4UL	0	44000.00	9.00	10.00	9.00	13.00	13.00	8.00	13.00	9.00	9.00	12.00	6.00	18.00
Lead	95	0	2.00	37.00	BH KTB010	1.00	0	0	mg/kg	C4SL	0	1300.00	8.00	24.00	7.00	36.00	12.00	12.00	11.00	10.00	9.00	27.00	12.00	18.00
Mercury	95	0	LOD	0.34	TP KTB010	2.50	0	0	mg/kg	S4UL	0	30.00	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	95	0	LOD	1.00	TP KTB010	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel	95	0	LOD	29.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	3400.00	17.00	6.00	10.00	7.00	15.00	9.00	14.00	11.00	14.00	7.00	6.00	8.00
Selenium	95	0	LOD	2.00	TP KTB017	0.70	0	0	mg/kg	S4UL	0	1800.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	95	0	7.00	35.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	5000.00	18.00	18.00	14.00	18.00	23.00	21.00	25.00	16.00	17.00	26.00	12.00	27.00
Zinc	95	0	LOD	64.00	BH KTB016A	0.30	0	0	mg/kg	S4UL	0	170000.00	27.00	35.00	18.00	64.00	28.00	14.00	22.00	23.00	25.00	37.00	19.00	53.00
Inorganics																								
pH	90	54	5.20	8.49	TP KTB016(BRE	0.80	0	0	pH Units	-	0	7.0-9.0	7.03	6.57	7.66	6.60	7.57	7.50	7.78	6.80	7.21	6.33	6.65	7.22
Cyanide, Free	51	0	LOD					0	0	AtkinsAtrisk	0	34.00		<1						<1	<1	<1		
Soil Organic Matter (SOM)	78	0	LOD	7.60	TP KTB013	0.20	0	0	%	-	0		0.20	2.10	0.30	4.00	0.50	0.70	0.40	0.50	0.20	3.00	0.60	3.90
Organic matter (TOC)	92	0	LOD	5.50	BH KTB010	1.00	0	0	-	-	0		0.09	1.23	0.17	2.33	0.29	0.40	0.28	0.27	0.09	1.71	0.33	2.28
Water Soluble Sulphate (2:1)																								
Sulphide	71	0	LOD					0	0	-	0		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Volatile	112			99.00																				
Asbestos in Soil	40	0			TP KTB010	2.50	0	0	0	-	0	Detected										NAD		
Asbestos Quantification	40	0	#NUM!	LOD	TP KTB010	2.50	0	0	0	-	0	Detected										N/A		
Phenols																								
Total Phenols	58	0	LOD	LOD	BH KTB017	0.30	0	0	mg/kg	S4UL	0	760.00		<0.2						<0.2	<0.2	<0.2		
Petroleum Hydrocarbons																								
Aliphatic C5-C6	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	95	0	LOD	2.00	BH KTB023	0.20	0	0	mg/kg	S4UL	0	450000.00	<1	<1	<1	<1	<1	2.00	<1	<1	<1	<1	<1	1.00
Aliphatic C21-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	S4UL	0	450000.00	<1	4.00	<1	10.00	<1	9.00	<1	<1	<1	9.00	<1	11.00
Aliphatic C5-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	4.00	<1	10.00	<1	11.00	<1	<1	<1	9.00	<1	12.00
Aromatic C5-C7	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	95	0	LOD	1.00	BH KTB021 minin	0.20	0	0	mg/kg	S4UL	0	7200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	95	0	LOD	2.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	95	0	LOD	3.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	10000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	95	0	LOD	7.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7600.00	<1	<1	<1	3.00	<1	4.00	<1	<1	<1	<1	<1	1.00
Aromatic C21-C35	95	0	LOD	32.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7800.00	<1	4.00	<1	20.00	<1	13.00	<1	<1	<1	6.00	<1	12.00
Aromatic C5-C35	95	0	LOD	40.00	BH KTB007	0.30	0	0	mg/kg	-	0		<1	4.00	<1	23.00	<1	18.00	<1	<1	<1	6.00	<1	13.00
TPH Ali/Aro Total	95	0	LOD	69.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	7.00	<1	33.00	<1	29.00	<1	<1	<1	15.00	<1	25.00
BTEX																								
Benzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																								
Naphthalene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	95	0	LOD	0.02	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	95	0	LOD	0.05	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	95	0	LOD	0.03	BH KTB010	0.30	0	0	mg/kg	S4UL	0	20000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6200.00	<0.03	0.06	<0.03	0.13	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	95	0	LOD	0.09	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150000.00	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	95	0	LOD	1.50	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6300.00	<0.08	0.15	<0.08	0.40	<0.08	<0.08	<0.08	<0.08	<0.08	0.12	<0.08	<0.08
Pyrene	95	0	LOD	1.23	BH KTB010	0.30	0	0	mg/kg	S4UL	0	15000.00	<0.07	0.12	<0.07	0.34	<0.07	<0.07	<0.07	<0.07	<0.07	0.11	<0.07	<0.07
Benzo(a)anthracene	95	0	LOD	0.62	BH KTB010	0.30	0	0	mg/kg	S4UL	0	49.00	<0.04	0.08	<0.04	0.23	<0.04	<0.04	<0.04	<0.04	<0.04	0.06	<0.04	<0.04
Chrysene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	S4UL	0	93.00	<0.06	0.08	<0.06	0.25	<0.06	<0.06	<0.06	<0.06	<0.06	0.07	<0.06	<0.06
Benzo(b)fluoranthene	95	0	LOD	0.83	BH KTB010	0.30	0	0	mg/kg	S4UL	0	13.00	<0.05	0.11	<0.05	0.27	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	0.07
Benzo(k)fluoranthene	95	0	LOD	0.30	BH KTB010	0.30	0	0	mg/kg	S4UL	0	370.00	<0.07	<0.07	<0.07	0.10	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	C4SL	0	21.00	<0.04	0.08	<0.04	0.25	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	0.06
Indeno(1,2,3-c,d)pyrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150.00	<0.03	0.05	<0.03	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	95	0	LOD	0.11	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	95	0	LOD	0.42	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1400.00	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	95	0	LOD	7.56	BH KTB010	0.30	0	0	mg/kg	-	0		<0.08	0.73	<0.08	2.35	<0.08	<0.08	<0.08	<0.08	<0.08	0.52	<0.08	0.13

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM												
Lab No.																								
Sample ID													BH KTB012	TP KTB017	TP KTB017	TP KTB017	BH KTB007A	BH KTB007A	TP KTB016(BRE	TP KTB016(BRE	BH KTB007	BH KTB007	BH KTB008	BH KTB036
Depth													1.00	0.20	0.70	2.50	0.10	1.10	0.50	0.80	0.30	1.50	0.40	0.30
Strata																								
Sample Type																								
Date													02-Mar-21	04-Mar-21	04-Mar-21	04-Mar-21	08-Mar-21	08-Mar-21	05-Mar-21	05-Mar-21	05-Mar-21	05-Mar-21	08-Mar-21	08-Mar-21
Metals																								
Antimony	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	3090.00	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	95	0	LOD	7.00	BH KTB014	1.00	0	0	mg/kg	C4SL	0	170.00	<1	2.00	3.00	<1	3.00	3.00	<1	4.00	4.00	7.00	<1	2.00
Barium	95	0	4.00	172.00	BH KTB016A	0.30	0	0	mg/kg	AtkinsAtrisk	0	5770.00	29.00	68.00	107.00	104.00	58.00	101.00	92.00	87.00	75.00	116.00	19.00	23.00
Beryllium	95	0	LOD	1.20	BH KTB007	1.50	0	0	mg/kg	S4UL	0	63.00	<0.5	<0.5	0.80	0.80	<0.5	0.90	<0.5	0.80	0.50	1.20	<0.5	<0.5
Boron, Water Soluble	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	95	0	LOD	0.90	TP KTB017	0.70	0	0	mg/kg	C4SL	0	880.00	<0.5	0.70	0.90	0.80	<0.5	<0.5	<0.5	0.80	<1	<1	<0.5	<0.5
Chromium	95	0	4.00	34.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	33000.00	8.00	18.00	21.00	24.00	17.00	29.00	17.00	22.00	23.00	34.00	7.00	9.00
Chromium, Hexavalent	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	95	0	LOD	45.00	TP KTB010	2.50	0	0	mg/kg	S4UL	0	44000.00	6.00	10.00	14.00	16.00	10.00	12.00	9.00	15.00	14.00	16.00	5.00	5.00
Lead	95	0	2.00	37.00	BH KTB010	1.00	0	0	mg/kg	C4SL	0	1300.00	8.00	20.00	15.00	9.00	17.00	11.00	13.00	9.00	19.00	13.00	10.00	8.00
Mercury	95	0	LOD	0.34	TP KTB010	2.50	0	0	mg/kg	S4UL	0	30.00	<0.17	<0.17	<0.17	0.26	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	95	0	LOD	1.00	TP KTB010	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel	95	0	LOD	29.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	3400.00	4.00	12.00	23.00	22.00	11.00	24.00	15.00	23.00	14.00	29.00	3.00	6.00
Selenium	95	0	LOD	2.00	TP KTB017	0.70	0	0	mg/kg	S4UL	0	1800.00	<1	<1	2.00	1.00	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	95	0	7.00	35.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	5000.00	13.00	23.00	24.00	24.00	22.00	32.00	19.00	22.00	27.00	35.00	9.00	10.00
Zinc	95	0	LOD	64.00	BH KTB016A	0.30	0	0	mg/kg	S4UL	0	170000.00	18.00	26.00	32.00	32.00	36.00	36.00	25.00	33.00	43.00	42.00	15.00	16.00
Inorganics																								
pH	90	54	5.20	8.49	TP KTB016(BRE)	0.80	0	0	pH Units	-	0	7.0-9.0	0.00	7.07	7.18	8.34	6.39	7.71	7.82	8.49	6.61	7.52	7.26	6.90
Cyanide, Free	51	0	LOD					0	0	AtkinsAtrisk	0	34.00		<1	<1				<1	<1			<1	
Soil Organic Matter (SOM)	78	0	LOD	7.60	TP KTB013	0.20	0	0	%	-	0			1.10	0.70	0.30	3.60	0.40	0.80	0.40	3.10	0.60	1.20	1.20
Organic matter (TOC)	92	0	LOD	5.50	BH KTB010	1.00	0	0	0	-	0			0.62	0.38	0.20	2.11	0.21	0.46	0.23	1.77	0.33	0.66	0.69
Fractional Organic Carbon (FOC)	19			3.20						-														
Sulphide	71	0	LOD					0	0	-	0			<5	<5	<5	<5	<5	<5	<5	15.00	18.00	13.00	19.00
Nitrate	19			98.00						-														
Asbestos in Soil	40	0			TP KTB010	2.50	0	0	0	-	0	Detected		NAD	NAD				NAD	NAD				
Asbestos Quantification	40	0	#NUM!	LOD	TP KTB010	2.50	0	0	0	-	0	Detected		N/A	N/A				N/A	N/A				
Phenols																								
Total Phenols	58	0	LOD	LOD	BH KTB017	0.30	0	0	mg/kg	S4UL	0	760.00		<0.2	<0.2				<0.2	<0.2			<0.2	
Petroleum Hydrocarbons																								
Aliphatic C5-C6	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	95	0	LOD	2.00	BH KTB023	0.20	0	0	mg/kg	S4UL	0	450000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.00	<1	<1
Aliphatic C21-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	S4UL	0	450000.00	<1	8.00	<1	<1	5.00	2.00	2.00	1.00	22.00	5.00	2.00	<1
Aliphatic C5-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	8.00	<1	<1	5.00	2.00	2.00	1.00	22.00	7.00	2.00	<1
Aromatic C5-C7	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	95	0	LOD	1.00	3H KTB021 minin	0.20	0	0	mg/kg	S4UL	0	7200.00	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1	<1
Aromatic C10-C12	95	0	LOD	2.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	2.00	<1	<1	<1
Aromatic C12-C16	95	0	LOD	3.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	10000.00	<1	<1	<1	<1	<1	<1	<1	<1	3.00	<1	<1	<1
Aromatic C16-C21	95	0	LOD	7.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7600.00	<1	<1	<1	<1	1.00	<1	<1	<1	3.00	<1	<1	<1
Aromatic C21-C35	95	0	LOD	32.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7800.00	<1	6.00	<1	<1	7.00	1.00	3.00	2.00	30.00	2.00	<1	<1
Aromatic C5-C35	95	0	LOD	40.00	BH KTB007	0.30	0	0	mg/kg	-	0		<1	6.00	<1	<1	9.00	1.00	3.00	2.00	40.00	2.00	<1	<1
TPH Ali/Aro Total	95	0	LOD	69.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	14.00	<1	<1	14.00	3.00	6.00	3.00	62.00	9.00	3.00	<1
BTEX																								
Benzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																								
Naphthalene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	95	0	LOD	0.02	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	95	0	LOD	0.05	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	95	0	LOD	0.03	BH KTB010	0.30	0	0	mg/kg	S4UL	0	20000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6200.00	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	0.07	<0.03	<0.03	<0.03
Anthracene	95	0	LOD	0.09	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150000.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	95	0	LOD	1.50	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6300.00	<0.08	<0.08	<0.08	<0.08	0.15	<0.08	<0.08	<0.08	0.17	<0.08	<0.08	<0.08
Pyrene	95	0	LOD	1.23	BH KTB010	0.30	0	0	mg/kg	S4UL	0	15000.00	<0.07	<0.07	<0.07	<0.07	0.12	<0.07	<0.07	<0.07	0.13	<0.07	<0.07	<0.07
Benzo(a)anthracene	95	0	LOD	0.62	BH KTB010	0.30	0	0	mg/kg	S4UL	0	49.00	<0.04	<0.04	<0.04	<0.04	0.09	<0.04	<0.04	<0.04	0.07	<0.04	<0.04	<0.04
Chrysene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	S4UL	0	93.00	<0.06	<0.06	<0.06	<0.06	0.10	<0.06	<0.06	<0.06	0.08	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	95	0	LOD	0.83	BH KTB010	0.30	0	0	mg/kg	S4UL	0	13.00	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	95	0	LOD	0.30	BH KTB010	0.30	0	0	mg/kg	S4UL	0	370.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	C4SL	0	21.00	<0.04	<0.04	<0.04	<0.04	0.10	<0.04	<0.04	<0.04	0.07	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150.00	<0.03	<0.03	<0.03	<0.03	0.06	<0.03	<0.03	<0.03	0.06	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	95	0	LOD	0.11	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	95	0	LOD	0.42	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1400.00	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	95	0	LOD	7.56	BH KTB010	0.30	0	0	mg/kg	-	0		<0.08	<0.08	<0.08	<0.08	0.85	<0.08	<0.08	<0.08	0.74	<0.08	<0.08	<0.08

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Lab No.																							
Sample ID												BH KTB036	BH KTB009	BH KTB009	BH KTB009	BH KTB010	BH KTB010	BH KTB004	BH KTB004	BH KTB020	BH KTB020	BH KTB005	BH KTB005
Depth												1.50	0.20	0.50	1.00	0.30	1.00	0.30	0.50	0.50	1.20	0.30	1.50
Strata																							
Sample Type																							
Date												08-Mar-21	01-Mar-21	01-Mar-21	01-Mar-21	10-Mar-21	10-Mar-21	23-Mar-21	23-Mar-21	08-Mar-21	08-Mar-21	23-Mar-21	23-Mar-21
Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM											
Metals																							
Antimony	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	3090.00	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	95	0	LOD	7.00	BH KTB014	1.00	0	0	mg/kg	C4SL	0	170.00	2.00	<1	2.00	2.00	2.00	6.00	3.00	4.00	1.00	<1	2.00	1.00
Barium	95	0	4.00	172.00	BH KTB016A	0.30	0	0	mg/kg	AtkinsAtrisk	0	5770.00	43.00	66.00	38.00	23.00	87.00	147.00	39.00	35.00	20.00	40.00	77.00	61.00
Beryllium	95	0	LOD	1.20	BH KTB007	1.50	0	0	mg/kg	S4UL	0	63.00	0.60	<0.5	<0.5	<0.5	<0.5	0.80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron, Water Soluble	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	95	0	LOD	0.90	TP KTB017	0.70	0	0	mg/kg	C4SL	0	880.00	0.60	<0.5	0.60	<0.5	<0.5	0.90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	95	0	4.00	34.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	33000.00	14.00	18.00	16.00	12.00	11.00	23.00	14.00	14.00	8.00	15.00	14.00	11.00
Chromium, Hexavalent	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	95	0	LOD	45.00	TP KTB010	2.50	0	0	mg/kg	S4UL	0	44000.00	6.00	12.00	7.00	6.00	11.00	22.00	10.00	10.00	3.00	6.00	16.00	10.00
Lead	95	0	2.00	37.00	BH KTB010	1.00	0	0	mg/kg	C4SL	0	1300.00	8.00	28.00	8.00	10.00	29.00	37.00	19.00	14.00	8.00	8.00	32.00	21.00
Mercury	95	0	LOD	0.34	TP KTB010	2.50	0	0	mg/kg	S4UL	0	30.00	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	95	0	LOD	1.00	TP KTB010	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel	95	0	LOD	29.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	3400.00	12.00	7.00	10.00	6.00	7.00	19.00	7.00	8.00	4.00	9.00	8.00	5.00
Selenium	95	0	LOD	2.00	TP KTB017	0.70	0	0	mg/kg	S4UL	0	1800.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	95	0	7.00	35.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	5000.00	17.00	26.00	18.00	13.00	14.00	27.00	18.00	18.00	8.00	14.00	24.00	14.00
Zinc	95	0	LOD	64.00	BH KTB016A	0.30	0	0	mg/kg	S4UL	0	170000.00	21.00	42.00	15.00	17.00	39.00	61.00	29.00	24.00	11.00	14.00	47.00	29.00
Inorganics																								
pH	90	54	5.20	8.49	TP KTB016(BRE	0.80	0	0	pH Units	-	0	7.0-9.0	7.30	6.65	6.84	6.63	6.92	7.51	6.19	5.69	7.12	7.13	6.34	6.26
Cyanide, Free	51	0	LOD					0	0	AtkinsAtrisk	0	34.00		<1	<1	<1	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Soil Organic Matter (SOM)	78	0	LOD	7.60	TP KTB013	0.20	0	0	%	-	0		<0.1	2.70	0.30	0.80	<1	<1						
Organic matter (TOC)	92	0	LOD	5.50	BH KTB010	1.00	0	0	0	-	0		0.06	1.59	0.18	0.43	3.40	5.50	4.80	1.20	0.60	0.60	4.90	2.20
Total Organic Carbon (TOC)	112	0	LOD	5.50													1.95	3.20	2.78	0.67	0.34	0.39	2.79	1.28
Sulphide	71	0	LOD						0	-	0		11.00	<5	<5	<5	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Viability	112			DELETE													20.00	11.00	98.00	67.00	<5	<5	<5	<5
Asbestos in Soil	40	0			TP KTB010	2.50	0	0	0	-	0	Detected		NAD	NAD	NAD	NAD	NAD						
Asbestos Quantification	40	0	#NUM!	LOD	TP KTB010	2.50	0	0	0	-	0	Detected		N/A	N/A	N/A	N/A	N/A						
Phenols																								
Total Phenols	58	0	LOD	LOD	BH KTB017	0.30	0	0	mg/kg	S4UL	0	760.00		<0.2	<0.2	<0.2	<0.2	<0.2						
Petroleum Hydrocarbons																								
Aliphatic C5-C6	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	95	0	LOD	2.00	BH KTB023	0.20	0	0	mg/kg	S4UL	0	450000.00	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	S4UL	0	450000.00	<1	<1	9.00	<1	11.00	2.00	10.00	3.00	1.00	<1	7.00	4.00
Aliphatic C5-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	<1	10.00	<1	11.00	2.00	10.00	3.00	1.00	<1	7.00	4.00
Aromatic C5-C7	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	95	0	LOD	1.00	BH KTB021 minin	0.20	0	0	mg/kg	S4UL	0	7200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	95	0	LOD	2.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	95	0	LOD	3.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	10000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	95	0	LOD	7.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7600.00	<1	<1	2.00	<1	7.00	<1	<1	<1	<1	<1	<1	<1
Aromatic C21-C35	95	0	LOD	32.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7800.00	<1	<1	10.00	<1	32.00	7.00	5.00	2.00	<1	<1	3.00	2.00
Aromatic C5-C35	95	0	LOD	40.00	BH KTB007	0.30	0	0	mg/kg	-	0		<1	<1	12.00	<1	39.00	7.00	5.00	2.00	<1	<1	3.00	2.00
TPH Ali/Aro Total	95	0	LOD	69.00	BH KTB018	0.30	0	0	mg/kg	-	0		<1	<1	23.00	<1	50.00	10.00	15.00	6.00	2.00	<1	10.00	6.00
BTEX																								
Benzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																								
Naphthalene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	95	0	LOD	0.02	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	95	0	LOD	0.05	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	95	0	LOD	0.03	BH KTB010	0.30	0	0	mg/kg	S4UL	0	20000.00	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6200.00	<0.03	<0.03	<0.03	<0.03	0.52	0.10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	95	0	LOD	0.09	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150000.00	<0.02	<0.02	<0.02	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	95	0	LOD	1.50	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6300.00	<0.08	<0.08	<0.08	<0.08	1.50	0.22	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	95	0	LOD	1.23	BH KTB010	0.30	0	0	mg/kg	S4UL	0	15000.00	<0.07	<0.07	<0.07	<0.07	1.23	0.19	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	95	0	LOD	0.62	BH KTB010	0.30	0	0	mg/kg	S4UL	0	49.00	<0.04	<0.04	<0.04	<0.04	0.62	0.09	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	S4UL	0	93.00	<0.06	<0.06	<0.06	<0.06	0.66	0.11	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	95	0	LOD	0.83	BH KTB010	0.30	0	0	mg/kg	S4UL	0	13.00	<0.05	<0.05	<0.05	<0.05	0.83	0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	95	0	LOD	0.30	BH KTB010	0.30	0	0	mg/kg	S4UL	0	370.00	<0.07	<0.07	<0.07	<0.07	0.30	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	C4SL	0	21.00	<0.04	<0.04	<0.04	<0.04	0.66	0.09	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150.00	<0.03	<0.03	<0.03	<0.03	0.52	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	95	0	LOD	0.11	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1.10	<0.04	<0.04	<0.04	<0.04	0.11	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	95	0	LOD	0.42	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1400.00	<0.05	<0.05	<0.05	<0.05	0.42	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	95	0	LOD	7.56	BH KTB010	0.30	0	0	mg/kg	-	0		<0.08	<0.08	<0.08	<0.08	7.56	0.96	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Lab No.																							
Sample ID												BH KTB018	BH KTB018	BH KTB018	TP KTB004	TP KTB004	TP KTB004	TP KTB006	TP KTB006	TP KTB007	TP KTB007	TP KTB008
Depth												0.30	0.50	1.20	0.20	0.50	1.20	0.20	0.60	0.60	1.50	0.20
Strata																						
Sample Type																						
Date												23-Mar-21	23-Mar-21	23-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	09-Apr-21	09-Apr-21	09-Apr-21	09-Apr-21	09-Apr-21
Sample Matrix Code	**No. of Samples Tested**	**No. of Exceedances**	**Minimum**	**Maximum**	**Location of Max**	**Depth of Max**	**Strata**	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM										
Metals																						
Antimony	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	3090.00	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	95	0	LOD	7.00	BH KTB014	1.00	0	0	mg/kg	C4SL	0	170.00	1.00	3.00	3.00	3.00	<1	2.00	2.00	5.00	2.00	7.00	3.00
Barium	95	0	4.00	172.00	BH KTB016A	0.30	0	0	mg/kg	AtkinsAtrisk	0	5770.00	43.00	67.00	69.00	26.00	27.00	21.00	50.00	17.00	14.00	44.00	59.00
Beryllium	95	0	LOD	1.20	BH KTB007	1.50	0	0	mg/kg	S4UL	0	63.00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.60	<0.5
Boron, Water Soluble	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	95	0	LOD	0.90	TP KTB017	0.70	0	0	mg/kg	C4SL	0	880.00	<0.5	0.60	0.60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	95	0	4.00	34.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	33000.00	15.00	18.00	20.00	11.00	12.00	15.00	11.00	10.00	8.00	20.00	14.00
Chromium, Hexavalent	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	95	0	LOD	45.00	TP KTB010	2.50	0	0	mg/kg	S4UL	0	44000.00	4.00	6.00	5.00	5.00	9.00	6.00	8.00	4.00	3.00	10.00	8.00
Lead	95	0	2.00	37.00	BH KTB010	1.00	0	0	mg/kg	C4SL	0	1300.00	16.00	11.00	11.00	4.00	13.00	5.00	20.00	5.00	5.00	9.00	22.00
Mercury	95	0	LOD	0.34	TP KTB010	2.50	0	0	mg/kg	S4UL	0	30.00	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	95	0	LOD	1.00	TP KTB010	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel	95	0	LOD	29.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	3400.00	6.00	10.00	12.00	8.00	5.00	13.00	6.00	8.00	5.00	11.00	7.00
Selenium	95	0	LOD	2.00	TP KTB017	0.70	0	0	mg/kg	S4UL	0	1800.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	95	0	7.00	35.00	BH KTB007	1.50	0	0	mg/kg	S4UL	0	5000.00	19.00	21.00	23.00	9.00	13.00	15.00	16.00	10.00	10.00	22.00	18.00
Zinc	95	0	LOD	64.00	BH KTB016A	0.30	0	0	mg/kg	S4UL	0	170000.00	25.00	18.00	17.00	13.00	19.00	31.00	25.00	16.00	13.00	20.00	25.00
Inorganics																							
pH	90	54	5.20	8.49	TP KTB016(BRE	0.80	0	0	pH Units	-	0	7.0-9.0	5.20	6.18	6.61	5.82	5.75	5.72	6.45	6.61	6.39	6.94	5.44
Cyanide, Free	51	0	LOD					0	0	AtkinsAtrisk	0	34.00	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Soil Organic Matter (SOM)	78	0	LOD	7.60	TP KTB013	0.20	0	0	%	-	0		<1	<1	<1				<1				<1
Organic matter (TOC)	92	0	LOD	5.50	BH KTB010	1.00	0	0	0	-	0		5.40	0.80	0.70	<0.1	1.10	0.40	1.30	<0.1	0.40	<0.1	2.20
Total Organic Carbon (TOC)	73			5.50									3.12	0.46	0.38	0.04	0.59	0.27	0.75	0.07	0.21	0.06	1.28
Sulphide	71	0	LOD					0	0	-	0		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Volume	73			69.00									68.00	31.00	21.00	<5	<5	11.00	<5	<5	<5	<5	21.00
Asbestos in Soil	40	0			TP KTB010	2.50	0	0	0	-	0	Detected							NAD				NAD
Asbestos Quantification	40	0	#NUM!	LOD	TP KTB010	2.50	0	0	0	-	0	Detected							N/A				N/A
Phenols																							
Total Phenols	58	0	LOD	LOD	BH KTB017	0.30	0	0	mg/kg	S4UL	0	760.00	<0.2	<0.2	<0.2				<0.2				<0.2
Petroleum Hydrocarbons																							
Aliphatic C5-C6	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	95	0	LOD	2.00	BH KTB023	0.20	0	0	mg/kg	S4UL	0	450000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	S4UL	0	450000.00	37.00	1.00	1.00	5.00	4.00	<1	2.00	<1	<1	<1	4.00
Aliphatic C5-C35	95	0	LOD	37.00	BH KTB018	0.30	0	0	mg/kg	-	0		37.00	1.00	1.00	5.00	4.00	<1	2.00	<1	<1	<1	4.00
Aromatic C5-C7	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	95	0	LOD	1.00	BH KTB021 minin	0.20	0	0	mg/kg	S4UL	0	7200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	95	0	LOD	2.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	95	0	LOD	3.00	BH KTB007	0.30	0	0	mg/kg	S4UL	0	10000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	95	0	LOD	7.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7600.00	4.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C21-C35	95	0	LOD	32.00	BH KTB010	0.30	0	0	mg/kg	S4UL	0	7800.00	28.00	1.00	1.00	2.00	2.00	<1	2.00	<1	<1	<1	4.00
Aromatic C5-C35	95	0	LOD	40.00	BH KTB007	0.30	0	0	mg/kg	-	0		32.00	1.00	1.00	2.00	2.00	<1	2.00	<1	<1	<1	4.00
TPH Ali/Aro Total	95	0	LOD	69.00	BH KTB018	0.30	0	0	mg/kg	-	0		69.00	2.00	2.00	7.00	6.00	<1	4.00	<1	<1	<1	9.00
BTEX																							
Benzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	95	0	LOD	0.07	BH KTB023	0.20	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
P-Xylene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Tert-Butyl Ether (MTBE)	95	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																							
Naphthalene	95	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	95	0	LOD	0.02	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	95	0	LOD	0.05	BH KTB010	0.30	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	95	0	LOD	0.03	BH KTB010	0.30	0	0	mg/kg	S4UL	0	20000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	95	0	LOD	0.09	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150000.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	95	0	LOD	1.50	BH KTB010	0.30	0	0	mg/kg	S4UL	0	6300.00	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	95	0	LOD	1.23	BH KTB010	0.30	0	0	mg/kg	S4UL	0	15000.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	95	0	LOD	0.62	BH KTB010	0.30	0	0	mg/kg	S4UL	0	49.00	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	S4UL	0	93.00	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	95	0	LOD	0.83	BH KTB010	0.30	0	0	mg/kg	S4UL	0	13.00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	95	0	LOD	0.30	BH KTB010	0.30	0	0	mg/kg	S4UL	0	370.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	95	0	LOD	0.66	BH KTB010	0.30	0	0	mg/kg	C4SL	0	21.00	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	95	0	LOD	0.52	BH KTB010	0.30	0	0	mg/kg	S4UL	0	150.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	95	0	LOD	0.11	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	95	0	LOD	0.42	BH KTB010	0.30	0	0	mg/kg	S4UL	0	1400.00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	95	0	LOD	7.56	BH KTB010	0.30	0	0	mg/kg	-	0		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

A66 Temple Sowerby to Appleby (Kirkby Thore)
GE A4.1 Exceedances Summary

Strata Selected:	MG
%SOM	
SOM (from TOC)	
SOM (from FOC)	

						1% SOM						2.5% SOM						6% SOM					
Contaminant	Number of samples Tested	Min	Max	Location of Max	Strate of Max	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)
Metals																							
Barium	5	25	236	BH KTB02	0	4	0	5	0	0	0	4	0	5	0	0	0	1	0	5	0	0	0
Inorganics																							
pH	11	6.14	7.87	BH KTB02	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

GE A4.1
A66 - Temple Sowerby to Appleby (Kirby Thore)
Soil Sample Screener
1% POS - Park

Lab No.																						
Sample ID													BH KTB001	BH KTB001	TP KTB001	TP KTB001	TP KTB002	TP KTB002	BH KTB024	BH KTB024	BH KTB025	BH KTB026	BH KTB026
Depth													0.50	1.00	0.30	0.70	0.60	1.20	0.50	1.20	0.50	0.30	0.50
Strata																							
Sample Type																							
Date													28-Apr-21	28-Apr-21	28-Apr-21	28-Apr-21	28-Apr-21	28-Apr-21	04-Mar-21	04-Mar-21	04-Mar-21	05-Mar-21	05-Mar-21
Sample Matrix Code	**No. of Samples Tested**	**No. of Exceedances**	**Minimum**	**Maximum**	**Location of Max**	**Depth of Max**	**Strata**	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM											
Metals																							
Antimony	5	0	LOD	LOD	BH KTB001	0.50	0	0	mg/kg	AtkinsAtrisk	0	3090.00							<5	<5	<5	<5	<5
Arsenic	11	0	LOD	7.00	BH KTB001	1.00	0	0	mg/kg	C4SL	0	170.00	3.00	7.00	4.00	4.00	3.00	4.00	<1	4.00	<1	3.00	<1
Barium	5	0	25.00	236.00	BH KTB024	1.20	0	0	mg/kg	AtkinsAtrisk	0	5770.00							83.00	236.00	25.00	78.00	95.00
Beryllium	5	0	LOD	1.30	BH KTB024	1.20	0	0	mg/kg	S4UL	0	63.00							0.60	1.30	<0.5	<0.5	0.90
Boron, Water Soluble	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	11	0	LOD	1.10	BH KTB001	1.00	0	0	mg/kg	C4SL	0	880.00	<0.5	1.10	<0.5	<0.5	<0.5	0.60	0.60	1.00	<0.5	<0.5	0.70
Chromium	11	0	9.00	93.00	BH KTB001	1.00	0	0	mg/kg	S4UL	0	33000.00	14.00	93.00	17.00	20.00	13.00	19.00	29.00	40.00	9.00	25.00	28.00
Chromium, Hexavalent	11	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	11	0	6.00	39.00	BH KTB001	1.00	0	0	mg/kg	S4UL	0	44000.00	8.00	39.00	12.00	7.00	9.00	9.00	12.00	20.00	6.00	16.00	13.00
Lead	11	0	4.00	27.00	TP KTB001	0.30	0	0	mg/kg	C4SL	0	1300.00	16.00	7.00	27.00	7.00	8.00	7.00	9.00	16.00	4.00	25.00	10.00
Mercury	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	30.00	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	5	0	LOD	LOD	BH KTB001	0.50	0	0	mg/kg	AtkinsAtrisk	0	2880.00							<1	<1	<1	<1	<1
Nickel	11	0	6.00	47.00	BH KTB001	1.00	0	0	mg/kg	S4UL	0	3400.00	8.00	47.00	11.00	15.00	10.00	14.00	19.00	38.00	6.00	13.00	26.00
Selenium	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1800.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	5	0	10.00	41.00	BH KTB024	1.20	0	0	mg/kg	S4UL	0	5000.00							30.00	41.00	10.00	24.00	26.00
Zinc	11	0	16.00	73.00	BH KTB001	1.00	0	0	mg/kg	S4UL	0	170000.00	30.00	73.00	41.00	22.00	25.00	20.00	23.00	48.00	16.00	42.00	30.00
Inorganics																							
pH	11	5	6.14	7.87	BH KTB026	0.50	0	0	pH Units	-	0	7.0-9.0	7.27	7.76	6.14	6.62	6.50	6.74	7.44	7.77	6.38	7.25	7.87
Cyanide, Free	1	0	LOD	LOD	BH KTB001	0.50	0	0	mg/kg	AtkinsAtrisk	0	34.00			<1								
Soil Organic Matter (SOM)	11	0	LOD	2.90	TP KTB001	0.30	0	0	%	-	0		2.20	<0.1	2.90	0.30	0.70	<0.1	0.30	0.30	0.20	2.90	0.30
Organic matter (TOC)	11	0	0.05	1.71	BH KTB026	0.30	0	0	%	-	0		1.29	0.05	1.69	0.18	0.43	0.06	0.19	0.16	0.10	1.71	0.18
Sulphide	11	0	LOD	LOD	0	0.00	0	0	mg/kg	-	0		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Asbestos in Soil	1	0			BH KTB001	0.50	0	0	0	-	0	Detected			NAD								
Asbestos Quantification	1	0		LOD	BH KTB001	0.50	0	0	0	-	0	Detected			N/A								
Phenols																							
Total Phenols	1	0	LOD	LOD	BH KTB001	0.50	0	0	mg/kg	S4UL	0	760.00			<0.2								
Petroleum Hydrocarbons																							
Aliphatic C5-C6	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	450000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	11	0	LOD	15.00	TP KTB001	0.30	0	0	mg/kg	S4UL	0	450000.00	12.00	1.00	15.00	11.00	<1	<1	<1	<1	<1	11.00	<1
Aliphatic C5-C35	11	0	LOD	15.00	TP KTB001	0.30	0	0	mg/kg	-	0		12.00	1.00	15.00	11.00	<1	<1	<1	<1	<1	11.00	<1
Aromatic C5-C7	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	11	0	LOD	1.00	TP KTB001	0.30	0	0	mg/kg	S4UL	0	7200.00	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	11	0	LOD	2.00	TP KTB001	0.30	0	0	mg/kg	S4UL	0	10000.00	<1	<1	2.00	2.00	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	11	0	LOD	3.00	TP KTB001	0.30	0	0	mg/kg	S4UL	0	7600.00	2.00	<1	3.00	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C21-C35	11	0	LOD	20.00	TP KTB001	0.30	0	0	mg/kg	S4UL	0	7800.00	18.00	1.00	20.00	2.00	<1	<1	<1	<1	<1	8.00	<1
Aromatic C5-C35	11	0	LOD	26.00	TP KTB001	0.30	0	0	mg/kg	-	0		20.00	1.00	26.00	4.00	<1	<1	<1	<1	<1	8.00	<1
TPH All/Aro Total	11	0	LOD	42.00	TP KTB001	0.30	0	0	mg/kg	-	0		32.00	2.00	42.00	15.00	<1	<1	<1	<1	<1	19.00	<1
BTEX																							
Benzene	11	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	11	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																							
Naphthalene	11	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	11	0	LOD	0.02	BH KTB001	0.50	0	0	mg/kg	S4UL	0	29000.00	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	11	0	LOD	0.03	BH KTB001	0.50	0	0	mg/kg	S4UL	0	29000.00	0.03	0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Fluorene	11	0	LOD	0.02	BH KTB001	0.50	0	0	mg/kg	S4UL	0	20000.00	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	<0.04
Phenanthrene	11	0	LOD	0.22	BH KTB001	0.50	0	0	mg/kg	S4UL	0	6200.00	0.22	0.11	0.11	<0.03	<0.03	<0.03	<0.04	<0.04	<0.04	<0.04	<0.04
Anthracene	11	0	LOD	0.09	BH KTB001	0.50	0	0	mg/kg	S4UL	0	150000.00	0.09	0.03	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	11	0	LOD	0.90	BH KTB001	0.50	0	0	mg/kg	S4UL	0	6300.00	0.90	0.21	0.36	<0.08	<0.08	<0.08	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	11	0	LOD	0.85	BH KTB001	0.50	0	0	mg/kg	S4UL	0	15000.00	0.85	0.18	0.31	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	11	0	LOD	0.62	BH KTB001	0.50	0	0	mg/kg	S4UL	0	49.00	0.62	0.11	0.16	<0.04	<0.04	<0.04	<0.06	<0.06	<0.06	<0.06	<0.06
Chrysene	11	0	LOD	0.62	BH KTB001	0.50	0	0	mg/kg	S4UL	0	93.00	0.62	0.10	0.21	<0.06	<0.06	<0.06	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(b)fluoranthene	11	0	LOD	0.92	BH KTB001	0.50	0	0	mg/kg	S4UL	0	13.00	0.92	0.12	0.29	<0.05	<0.05	<0.05	<0.08	<0.08	<0.08	<0.08	<0.08
Benzo(k)fluoranthene	11	0	LOD	0.34	BH KTB001	0.50	0	0	mg/kg	S4UL	0	370.00	0.34	<0.07	0.11	<0.07	<0.07	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)pyrene	11	0	LOD	0.81	BH KTB001	0.50	0	0	mg/kg	C4SL	0	21.00	0.81	0.11	0.24	<0.04	<0.04	<0.04	<0.03	<0.03	<0.03	<0.03	<0.03
Indeno(1,2,3-c,d)pyrene	11	0	LOD	0.59	BH KTB001	0.50	0	0	mg/kg	S4UL	0	150.00	0.59	0.06	0.18	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	11	0	LOD	0.11	BH KTB001	0.50	0	0	mg/kg	S4UL	0	1.10	0.11	<0.04	<0.04	<0.04	<0.04	<0.04	<0.03	<0.03	<0.03	<0.03	<0.03
Benzo(g,h,i)perylene	11	0	LOD	0.50	BH KTB001	0.50	0	0	mg/kg	S4UL	0	1400.00	0.50	0.06	0.14	<0.05	<0.05	<0.05	<0.07	<0.07	<0.07	<0.07	<0.07
PAH - USEPA 16, Total	11	0	LOD	6.64	BH KTB001	0.50	0	0	mg/kg	-	0		6.64	1.11	2.13	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D3.2 - KTB T1 WQS CWRA

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D3.2 - KTB T1 WQS CWRA
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000016

Rev	Suit. Code	Suitability		Purpose of Issue		
P02	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination		First Issue		
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	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	10/12/21	10/12/21	13/12/21	14/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Reference					BH KTB007A (groundwater)	BH KTB010 (groundwater)	BH KTB013 (groundwater)	BH KTB024 (groundwater)	BH KTB025 (groundwater)	TP KTB001 (leachate)	TP KTB002 (leachate)	TP KTB003 (leachate)	TP KTB004 (leachate)	TP KTB006 (leachate)	TP KTB007 (leachate)	TP KTB008 (leachate)	TP KTB009 (leachate)	TP KTB010 (leachate)	TP KTB011 (leachate)	TP KTB013 (leachate)
Depth (m)					3.80	5.50	3.00	5.00	6.00	0.7	1.2	0.2	1.2	0.2	0.6	0.2	0.4	2.5	2	0.2
Date Sampled					08-Jun-21	08-Jun-21	08-Jun-21	08-Jun-21	08-Jun-21											
	Units	GAC	Source																	
General Inorganics																				
pH (w)	pH	>6.5 x <9.5	UK DWS		7.57	7.46	6.68	7.45	7.16	6.6	6.2	6.68	6.93	6.3	6.24	7.58	7	7.8	7.1	6.6
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	0	667	703	387	626	626	34	40	43	22	56	62	27	168	167	27	43
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		0	280	273	83	264	243											
Hardness Total	mg/l Ca CO3	No screening value		0	384	368	189	400	381											
Total Suspended Solids (w)	mg/l	No screening value		0	70	<10	<10	192	<10											
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS	4	0.13	0.44	0.07	0.16	0.02											
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value		0	0.00282	0.00761	0.0002	0.00277	0.00018											
Chloride (w)	mg/l	250	UK DWS	0	43	15	9	10	11	3		2	13.86	32.7	9.42	6.69	7	1.12	2.69	11.91
Nitrite (w)	mg/l	0.5	UK DWS	1	<0.1	2.2	<0.1	0.1	<0.1											
Nitrate (w)	mg/l	50	UK DWS	3	<0.1	89.2	65.2	51.4	39.4											
Sulphate (w)	mg/l	250	UK DWS	0	55	37	30	44	16											
Sulphide (w)	mg/l	No screening value		0	<0.1	<0.1	<0.1	<0.1	<0.1											
DOC (w)	mg/l	No screening value		0	2.3	2	2.1	1	3											
PAHs																				
Naphthalene	µg/l	130	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Acenaphthylene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Acenaphthene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Fluorene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Phenanthrene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Anthracene	µg/l	0.1	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Fluoranthene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Pyrene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Benzo(a)anthracene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Chrysene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Benzo(b)fluoranthene*	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01											
Benzo(k)fluoranthene*	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01											
Benzo(a)pyrene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01											
Dibenz(a,h)anthracene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Benzo(ghi)perylene*	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01											
Total PAH (sum of 16)	µg/l	0.1	UK DWS	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Total PAH (sum of 4*)	µg/l	0.1	UK DWS	0	0	0	0	0	0											
Metals																				
Arsenic (dissolved)	µg/l	10	UK DWS	1	<1	<1	<1	<1	<1	2	2	3	<1	2	<1	<1	5	<1	<1	3
Boron (dissolved)	µg/l	1000	UK DWS	0	40	26	42	32	46											
Cadmium (dissolved)	µg/l	0.45	EQS	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.001	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value		0	109	130	62	127	144											
Copper (dissolved)	µg/l	1	EQS	40	19	16	18	22	31	17	5	14	7	31	12	15	24	1	3	19
Chromium (dissolved)	µg/l	50	UK DWS	0	9	12	10	<1	<1	3	2	1	<1	<1	<1	<1	1	<1	<1	1
Chromium (hexavalent) (w)	mg/l	3.4	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01											
Chromium (trivalent) (w)	mg/l	No screening value		0	<0.01	0.01	0.01	<0.01	<0.01											
Lead (dissolved)	µg/l	10	UK DWS	19	<1	<1	<1	<1	9	14	3	25	1	19	6	15	31	<1	9	23
Manganese (dissolved)	µg/l	50	UK DWS	3	300	91	21	1480	35											
Magnesium (dissolved)	mg/l	No screening value		0	27	10	8	20	5											
Mercury (dissolved)	µg/l	0.07	EQS	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	9	0.9	0.7	<0.5	0.7	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	0	3	2	1	2	2	3	2	2	<1	3	2	2	3	<1	<1	3
Potassium (dissolved)	mg/l	No screening value		0	3	9	2	2	<1											
Selenium (dissolved)	µg/l	10	UK DWS	0	<1	<1	<1	<1	<1	2	2	<1	<1	<1	<1	<1	<1	2	<1	<1
Sodium (dissolved)	mg/l	200	UK DWS	0	20	17	15	11	12											
Vanadium (dissolved)	µg/l	20	EQS	0	<1	<1	<1	<1	<1											
Zinc (dissolved)	µg/l	10.9	EQS	22	3	4	4	3	18	14	11	13	4	16	9	4	26	2	8	24
BTEX																				
Benzene	µg/l	1	UK DWS	0	<1	<1	<1	<1	<1											
Toluene	µg/l	74	EQS	0	<2	<2	<2	<2	<2											
Ethylbenzene	µg/l	300	WHO DWS	0	<1	<1	<1	<1	<1											
p & m-xylene	µg/l	30	EQS	0	<1	<1	<1	<1	<1											
o-xylene	µg/l	30	EQS	0	<1	<1	<1	<1	<1											
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		0	<1	<1	<1	<1	<1											
TPH																				
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	0	<1	<1	<1	<1	<1											
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	0	<1	<1	<1	<1	<1											
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	0	<5	<5	<5	<5	<5											
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	0	<5	<5	<5	<5	<5											
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	0	<5	261	<5	<5	<5											
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		0	<5	<5	<5	<5	<5											
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		0	<5	6	<5	<5	<5											
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		0	<5	267	<5	<5	<5											
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	0	<1	<1	<1	<1	<1											
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	0	<2	<2	<2	<2	<2											
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	0	<5	<5	<5	<5	<5											
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	0	<5	<5	<5	<5	<5											
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	0	<5	64	<5	<5	<5											
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	0	<5	6	<5	<5	<5											
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	0	<10	<10	<10	<10	<10											
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		0	<10	71	<10	<10	<10											
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		0	<10	338	<10	<10	<10											

Sample Reference					TP KTB014 (leachate)	TP KTB016 (leachate)	TP KTB017 (leachate)	TP KTB018 (leachate)	TP KTB022 (leachate)	TP KTB023 (leachate)	TP KTB024 (leachate)	BH KTB001 (leachate)	BH KTB002 (leachate)	BH KTB005 (leachate)	BH KTB007A (leachate)	BH KTB008 (leachate)	BH KTB009 (leachate)	BH KTB010 (leachate)	BH KTB011 (leachate)	BH KTB012 (leachate)	BH KTB013 (leachate)	BH KTB014 (leachate)
Depth (m)					3.5	0.5	2.5	0.2	0.2	0.6	1.7	0.5	0.5	1.5	1.1	0.4	1	1	0.1	0.1	0.5	1
Date Sampled																						
	Units	GAC	Source																			
General Inorganics																						
pH (w)	pH	>6.5 x <9.5	UK DWS		7.7	6.6	7.4	6	5.6	6.5	7.1	7.2	6.78	5.9	6.7	6.9	6.4	7.33	5.2	6.6	6.2	6.62
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	0	157	90	301	47	81	46	126	189	57	128	80	80	56	409	40	510	48	34
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		0																		
Hardness Total	mg/l Ca CO3	No screening value		0																		
Total Suspended Solids (w)	mg/l	No screening value		0																		
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS	4																		
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value		0																		
Chloride (w)	mg/l	250	UK DWS	0	6.47	6.06	1.24	11.33	2.48	3.62	6	<1	8	11.68	1.1	13.08	3.4	2.57	14.42	36.87	3.54	4.65
Nitrite (w)	mg/l	0.5	UK DWS	1																		
Nitrate (w)	mg/l	50	UK DWS	3																		
Sulphate (w)	mg/l	250	UK DWS	0																		
Sulphide (w)	mg/l	No screening value		0																		
DOC (w)	mg/l	No screening value		0																		
PAHs																						
Naphthalene	µg/l	130	EQS	0																		
Acenaphthylene	µg/l	0.01	LOD	0																		
Acenaphthene	µg/l	0.01	LOD	0																		
Fluorene	µg/l	0.01	LOD	0																		
Phenanthrene	µg/l	0.01	LOD	0																		
Anthracene	µg/l	0.1	EQS	0																		
Fluoranthene	µg/l	0.01	LOD	0																		
Pyrene	µg/l	0.01	LOD	0																		
Benzo(a)anthracene	µg/l	0.01	LOD	0																		
Chrysene	µg/l	0.01	LOD	0																		
Benzo(b)fluoranthene*	µg/l	No screening value		0																		
Benzo(k)fluoranthene*	µg/l	No screening value		0																		
Benzo(a)pyrene	µg/l	0.01	LOD	0																		
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		0																		
Dibenz(a,h)anthracene	µg/l	0.01	LOD	0																		
Benzo(ghi)perylene*	µg/l	No screening value		0																		
Total PAH (sum of 16)	µg/l	0.1	UK DWS	0																		
Total PAH (sum of 4*)	µg/l	0.1	UK DWS	0																		
Metals																						
Arsenic (dissolved)	µg/l	10	UK DWS	1	<1	<1	<1	<1	5	<1	<1	2	2	2	<1	3	1	4	1	9	2	<1
Boron (dissolved)	µg/l	1000	UK DWS	0																		
Cadmium (dissolved)	µg/l	0.45	EQS	0	<1	<1	<1	<1	<1	<1	<1	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value		0																		
Copper (dissolved)	µg/l	1	EQS	40	1	7	2	16	18	2	<1	15	17	12	2	30	16	13	17	55	51	16
Chromium (dissolved)	µg/l	50	UK DWS	0	<1	<1	<1	<1	2	<1	<1	4	<1	<1	<1	9	1	<1	1	2	2	<1
Chromium (hexavalent) (w)	mg/l	3.4	EQS	0																		
Chromium (trivalent) (w)	mg/l	No screening value		0																		
Lead (dissolved)	µg/l	10	UK DWS	19	<1	5	<1	11	16	<0.001	<1	28	9	8	<1	83	12	2	19	26	30	13
Manganese (dissolved)	µg/l	50	UK DWS	3																		
Magnesium (dissolved)	mg/l	No screening value		0																		
Mercury (dissolved)	µg/l	0.07	EQS	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	9	4	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	4	<1	5	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	0	<1	1	<1	2	3	<1	<1	3	2	2	<1	2	3	5	3	12	6	3
Potassium (dissolved)	mg/l	No screening value		0																		
Selenium (dissolved)	µg/l	10	UK DWS	0	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1
Sodium (dissolved)	mg/l	200	UK DWS	0																		
Vanadium (dissolved)	µg/l	20	EQS	0																		
Zinc (dissolved)	µg/l	10.9	EQS	22	8	4	4	15	24	6	1	21	9	13	3	10	12	9	15	39	34	11
BTEX																						
Benzene	µg/l	1	UK DWS	0																		
Toluene	µg/l	74	EQS	0																		
Ethylbenzene	µg/l	300	WHO DWS	0																		
p & m-xylene	µg/l	30	EQS	0																		
o-xylene	µg/l	30	EQS	0																		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		0																		
TPH																						
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	0																		
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	0																		
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	0																		
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	0																		
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	0																		
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		0																		
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		0																		
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		0																		
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	0																		
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	0																		
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	0																		
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	0																		
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	0																		
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	0																		
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	0																		
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		0																		
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		0																		

Sample Reference					BH KTB015 (leachate)	BH KTB018 (leachate)	BH KTB019 (leachate)	BH KTB020 (leachate)	BH KTB021 (leachate)	BH KTB022 (leachate)	BH KTB023 (leachate)	BH KTB025 (leachate)	BH KTB028 (leachate)
Depth (m)					0.5	1.2	1.2	0.5	0.2	0.1	0.2	0.5	0.3
Date Sampled													
	Units	GAC	Source										
General Inorganics													
pH (w)	pH	>6.5 x <9.5	UK DWS		6.9	6.1	7	8.8	6.2	6.68	6	7.5	6.74
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	0	54	22	29	76	78	65	84	24	44
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		0									
Hardness Total	mg/l Ca CO3	No screening value		0									
Total Suspended Solids (w)	mg/l	No screening value		0									
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS	4									
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value		0									
Chloride (w)	mg/l	250	UK DWS	0	2	2.18	<1.00	12.11	3.3	3	17.28	7.44	2
Nitrite (w)	mg/l	0.5	UK DWS	1									
Nitrate (w)	mg/l	50	UK DWS	3									
Sulphate (w)	mg/l	250	UK DWS	0									
Sulphide (w)	mg/l	No screening value		0									
DOC (w)	mg/l	No screening value		0									
PAHs													
Naphthalene	µg/l	130	EQS	0									
Acenaphthylene	µg/l	0.01	LOD	0									
Acenaphthene	µg/l	0.01	LOD	0									
Fluorene	µg/l	0.01	LOD	0									
Phenanthrene	µg/l	0.01	LOD	0									
Anthracene	µg/l	0.1	EQS	0									
Fluoranthene	µg/l	0.01	LOD	0									
Pyrene	µg/l	0.01	LOD	0									
Benzo(a)anthracene	µg/l	0.01	LOD	0									
Chrysene	µg/l	0.01	LOD	0									
Benzo(b)fluoranthene*	µg/l	No screening value		0									
Benzo(k)fluoranthene*	µg/l	No screening value		0									
Benzo(a)pyrene	µg/l	0.01	LOD	0									
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		0									
Dibenz(a,h)anthracene	µg/l	0.01	LOD	0									
Benzo(ghi)perylene*	µg/l	No screening value		0									
Total PAH (sum of 16)	µg/l	0.1	UK DWS	0									
Total PAH (sum of 4*)	µg/l	0.1	UK DWS	0									
Metals													
Arsenic (dissolved)	µg/l	10	UK DWS	1	<1	2	1	12	5	2	1	4	<1
Boron (dissolved)	µg/l	1000	UK DWS	0									
Cadmium (dissolved)	µg/l	0.45	EQS	0	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value		0									
Copper (dissolved)	µg/l	1	EQS	40	5	15	7	16	19	14	8	11	13
Chromium (dissolved)	µg/l	50	UK DWS	0	<1	1	2	24	3	2	1	8	<1
Chromium (hexavalent) (w)	mg/l	3.4	EQS	0									
Chromium (trivalent) (w)	mg/l	No screening value		0									
Lead (dissolved)	µg/l	10	UK DWS	19	3	27	8	40	46	15	8	4	10
Manganese (dissolved)	µg/l	50	UK DWS	3									
Magnesium (dissolved)	mg/l	No screening value		0									
Mercury (dissolved)	µg/l	0.07	EQS	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	9	<1	<1	<1	<1	<1	<1	<1	25	<1
Nickel (dissolved)	µg/l	20	UK DWS	0	<1	9	2	11	4	3	3	1	3
Potassium (dissolved)	mg/l	No screening value		0									
Selenium (dissolved)	µg/l	10	UK DWS	0	<1	<1	<1	<1	<1	<1	<1	6	<1
Sodium (dissolved)	mg/l	200	UK DWS	0									
Vanadium (dissolved)	µg/l	20	EQS	0									
Zinc (dissolved)	µg/l	10.9	EQS	22	6	42	7	35	33	11	6	63	11
BTEX													
Benzene	µg/l	1	UK DWS	0									
Toluene	µg/l	74	EQS	0									
Ethylbenzene	µg/l	300	WHO DWS	0									
p & m-xylene	µg/l	30	EQS	0									
o-xylene	µg/l	30	EQS	0									
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		0									
TPH													
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	0									
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	0									
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	0									
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	0									
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	0									
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		0									
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		0									
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		0									
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	0									
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	0									
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	0									
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	0									
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	0									
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	0									
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	0									
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		0									
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		0									

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A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D3.3 - KTB WQS Evaluation

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D3.3 - KTB WQS Evaluation
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000017

Rev	Suit. Code	Suitability		Purpose of Issue		
P02	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination		First Issue		
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	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	10/12/21	10/12/21	13/12/21	14/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Location	Sample Type	Depth (m)	DWS Evaluation	EQS Evaluation	Applicable WQS	Progress to Tier 2 Assessment?
BH KTB007A	GW	3.8	Principal aquifer	600m south of Birk Sike, 1.5km north of River Eden	DWS	Yes
	leachate	1.1				
BH KTB010	GW	5.5	Principal aquifer	910m north of Trout Beck	DWS	Yes
	leachate	1				
BH KTB013	GW	3	Principal aquifer	500m south of Birk Sike, 782m north of Trout Beck	DWS	Yes
	leachate	0.5				
BH KTB024	GW	5	Principal aquifer	650m east of Trout Beck	DWS	Yes
BH KTB025	GW	6	Principal aquifer	535m east of Trout Beck	DWS	Yes
	leachate	0.5				
TP KTB001	leachate	0.7	Principal aquifer	>1km north of River Eden and > 1km south Trout Beck	DWS	Yes
TP KTB002	leachate	1.2	Principal aquifer	>1km north of River Eden and > 1km south Trout Beck	DWS	Yes
TP KTB003	leachate	0.2	Principal aquifer	>1km north of River Eden	DWS	Yes
TP KTB004	leachate	1.2	Principal aquifer	1km from Birk Sike and Trout Beck	DWS	Yes
TP KTB006	leachate	0.2	Principal aquifer	1km north River Eden	DWS	Yes
TP KTB007	leachate	0.6	Principal aquifer	1km N Trout Beck and River Eden	DWS	Yes
TP KTB008	leachate	0.2	Principal aquifer	781m south Birk Sike	DWS	Yes
TP KTB009	leachate	1	Principal aquifer	653m south Birk Sike	DWS	Yes
TP KTB010	leachate	2.5	Principal aquifer	783m north Trout Beck	DWS	Yes
TP KTB011	leachate	2	Principal aquifer	783m north Trout Beck	DWS	Yes
TP KTB013	leachate	0.2	Principal aquifer	568m north Trout Beck	DWS	Yes
TP KTB014	leachate	3.5	Principal aquifer	700m north Trout Beck	DWS	Yes
TP KTB016	leachate	0.5	Principal aquifer	734m north Trout Beck	DWS	Yes
TP KTB017	leachate	2.5	Principal aquifer	734m north Trout Beck	DWS	Yes
TP KTB018	leachate	0.2	Principal aquifer	687m northeast of Trout Beck	DWS	Yes
TP KTB022	leachate	0.2	Principal aquifer	400m south Trout Beck	DWS	Yes
TP KTB023	leachate	0.6	Principal aquifer	800m north trout beck	DWS	Yes
TP KTB024	leachate	1.7	Principal aquifer	800m north trout beck	DWS	Yes
BH KTB001	leachate	0.5	Principal aquifer	>1km north of River Eden and > 1km south Trout Beck	DWS	Yes
BH KTB002	leachate	0.5	Principal aquifer	955m north River Eden	DWS	Yes
BH KTB005	leachate	1.5	Principal aquifer	1km N Trout Beck and River Eden	DWS	Yes
BH KTB008	leachate	0.4	Principal aquifer	781m south Birk Sike	DWS	Yes
BH KTB009	leachate	1	Principal aquifer	600m south Birk Sike	DWS	Yes
BH KTB011	leachate	0.1	Principal aquifer	980m northeast of Trout Beck	DWS	Yes
BH KTB012	leachate	0.7	Principal aquifer	700m south Trout Beck	DWS	Yes
BH KTB014	leachate	1.2	Principal aquifer	400m south Trout Beck	DWS	Yes
BH KTB015	leachate	0.5	Principal aquifer	457m south of pond and Birk Sike	DWS	Yes
BH KTB018	leachate	1.2	Principal aquifer	430m north Trout Beck	DWS	Yes
BH KTB019	leachate	1.2	Principal aquifer	665m northeast of Trout Beck	DWS	Yes
BH KTB020	leachate	0.5	Principal aquifer	1km from Birk Sike and Trout Beck	DWS	Yes
BH KTB021	leachate	0.2	Principal aquifer	896m north Trout Beck	DWS	Yes
BH KTB022	leachate	0.1	Principal aquifer	899m north of Trout Beck	DWS	Yes
BH KTB023	leachate	0.2	Principal aquifer	771m northeast of Trout Beck	DWS	Yes
BH KTB028	leachate	0.3	Principal aquifer	455m north Trout Beck	DWS	Yes

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A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D3.4 - KTB T2 DWS CWRA

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D3.4 - KTB T2 DWS CWRA
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000019

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination				
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Reference				BH KTB007A (groundwater)	BH KTB010 (groundwater)	BH KTB013 (groundwater)	BH KTB024 (groundwater)	BH KTB025 (groundwater)	TP KTB001 (leachate)	TP KTB002 (leachate)	TP KTB003 (leachate)	TP KTB004 (leachate)	TP KTB006 (leachate)	TP KTB007 (leachate)	TP KTB008 (leachate)	TP KTB009 (leachate)	TP KTB010 (leachate)	TP KTB011 (leachate)	TP KTB013 (leachate)	TP KTB014 (leachate)	TP KTB016 (leachate)	TP KTB017 (leachate)	TP KTB018 (leachate)
Depth (m)				3.80	5.50	3.00	5.00	6.00	0.7	1.2	0.2	1.2	0.2	0.6	0.2	0.4	2.5	2	0.2	3.5	0.5	2.5	0.2
Date Sampled				08-Jun-21	08-Jun-21	08-Jun-21	08-Jun-21	08-Jun-21															
	Units	GAC	Source																				
General Inorganics																							
pH (w)	pH	>6.5 x <9.5	UK DWS	7.57	7.46	6.68	7.45	7.16	6.6	6.2	6.68	6.93	6.3	6.24	7.58	7	7.8	7.1	6.6	7.7	6.6	7.4	6
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	667	703	387	626	626	34	40	43	22	56	62	27	168	167	27	43	157	90	301	47
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		280	273	83	264	243															
Hardness Total	mg/l Ca CO3	No screening value		384	368	189	400	381															
Total Suspended Solids (w)	mg/l	No screening value		70	<10	<10	192	<10															
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS	0.13	0.44	0.07	0.16	0.02															
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value		0.00282	0.00761	0.0002	0.00277	0.00018															
Chloride (w)	mg/l	250	UK DWS	43	15	9	10	11	3		2	13.86	32.7	9.42	6.69	7	1.12	2.69	11.91	6.47	6.06	1.24	11.33
Nitrite (w)	mg/l	0.5	UK DWS	<0.1	2.2	<0.1	0.1	<0.1															
Nitrate (w)	mg/l	50	UK DWS	<0.1	89.2	65.2	51.4	39.4															
Sulphate (w)	mg/l	250	UK DWS	55	37	30	44	16															
Sulphide (w)	mg/l	No screening value		<0.1	<0.1	<0.1	<0.1	<0.1															
DOC (w)	mg/l	No screening value		2.3	2	2.1	1	3															
PAHs																							
Naphthalene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Acenaphthylene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Acenaphthene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01															
Fluorene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Phenanthrene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Anthracene	µg/l	0.1	EQS	<0.01	<0.01	<0.01	<0.01	<0.01															
Fluoranthene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Pyrene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Benzo(a)anthracene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Chrysene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01															
Benzo(b)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Benzo(k)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Benzo(a)pyrene	µg/l	0.01	UK DWS	<0.01	<0.01	<0.01	<0.01	<0.01															
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Dibenz(a,h)anthracene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Benzo(ghi)perylene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01															
Total PAH (sum of 16)	µg/l	0.1	UK DWS	<0.01	<0.01	<0.01	<0.01	<0.01															
Total PAH (sum of 4*)	µg/l	0.1	UK DWS	0	0	0	0	0															
Metals																							
Arsenic (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	2	2	3	<1	2	<1	<1	5	<1	<1	3	<1	<1	<1	<1
Boron (dissolved)	µg/l	1000	UK DWS	40	26	42	32	46															
Cadmium (dissolved)	µg/l	5	UK DWS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.001	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value		109	130	62	127	144															
Copper (dissolved)	µg/l	2000	UK DWS	19	16	18	22	31	17	5	14	7	31	12	15	24	1	3	19	1	7	2	16
Chromium (dissolved)	µg/l	50	UK DWS	9	12	10	<1	<1	3	2	1	<1	<1	<1	<1	1	<1	<1	1	<1	<1	<1	<1
Chromium (hexavalent) (w)	mg/l	50	UK DWS	<0.01	<0.01	<0.01	<0.01	<0.01															
Chromium (trivalent) (w)	mg/l	50	UK DWS	<0.01	0.01	0.01	<0.01	<0.01															
Lead (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	9	14	3	25	1	19	6	15	31	<1	9	23	<1	5	<1	11
Manganese (dissolved)	µg/l	50	UK DWS	300	91	21	1480	35															
Magnesium (dissolved)	mg/l	No screening value		27	10	8	20	5															
Mercury (dissolved)	µg/l	1	UK DWS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value		0.9	0.7	<0.5	0.7	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	4	<1	2	<1
Nickel (dissolved)	µg/l	20	UK DWS	3	2	1	2	2	3	2	2	<1	3	2	2	3	<1	<1	3	<1	1	<1	2
Potassium (dissolved)	mg/l	No screening value		3	9	2	2	<1															
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	2	2	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	2	<1
Sodium (dissolved)	µg/l	200	UK DWS	20	17	15	11	12															
Vanadium (dissolved)	µg/l	No screening value		<1	<1	<1	<1	<1															
Zinc (dissolved)	µg/l	No screening value		3	4	4	3	18	14	11	13	4	16	9	4	26	2	8	24	8	4	4	15
BTEX																							
Benzene	µg/l	1	UK DWS	<1	<1	<1	<1	<1															
Toluene	µg/l	700	WHO DWS	<2	<2	<2	<2	<2															
Ethylbenzene	µg/l	300	WHO DWS	<1	<1	<1	<1	<1															
p & m-xylene	µg/l	500	WHO DWS	<1	<1	<1	<1	<1															
o-xylene	µg/l	500	WHO DWS	<1	<1	<1	<1	<1															
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		<1	<1	<1	<1	<1															
TPH																							
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	<1	<1	<1	<1	<1															
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	<1	<1	<1	<1	<1															
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	<5	<5	<5	<5	<5															
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	<5	<5	<5	<5	<5															
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	<5	261	<5	<5	<5															
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		<5	<5	<5	<5	<5															
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		<5	6	<5	<5	<5															
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		<5	267	<5	<5	<5															
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	<1	<1	<1	<1	<1															
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	<2	<2	<2	<2	<2															
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	<5	<5	<5	<5	<5															
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	<5	<5	<5	<5	<5															
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	<5	64	<5	<5	<5															
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	<5	6	<5	<5	<5															
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	<10	<10	<10	<10	<10															
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		<10	71	<10	<10	<10															
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		<10	338	<10	<10	<10															

Sample Reference				TP KTB022 (leachate)	TP KTB023 (leachate)	TP KTB024 (leachate)	BH KTB001 (leachate)	BH KTB002 (leachate)	BH KTB005 (leachate)	BH KTB007A (leachate)	BH KTB008 (leachate)	BH KTB009 (leachate)	BH KTB010 (leachate)	BH KTB011 (leachate)	BH KTB012 (leachate)	BH KTB013 (leachate)	BH KTB014 (leachate)	BH KTB015 (leachate)	BH KTB018 (leachate)	BH KTB019 (leachate)	BH KTB020 (leachate)	BH KTB021 (leachate)	BH KTB022 (leachate)	BH KTB023 (leachate)
Depth (m)				0.2	0.6	1.7	0.5	0.5	1.5	1.1	0.4	1	1	0.1	0.1	0.5	1	0.5	1.2	1.2	0.5	0.2	0.1	0.2
Date Sampled																								
	Units	GAC	Source																					
General Inorganics																								
pH (w)	pH	>6.5 x <9.5	UK DWS	5.6	6.5	7.1	7.2	6.78	5.9	6.7	6.9	6.4	7.33	5.2	6.6	6.2	6.62	6.9	6.1	7	8.8	6.2	6.68	6
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	81	46	126	189	57	128	80	80	56	409	40	510	48	34	54	22	29	76	78	65	84
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																						
Hardness Total	mg/l Ca CO3	No screening value																						
Total Suspended Solids (w)	mg/l	No screening value																						
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS																					
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																						
Chloride (w)	mg/l	250	UK DWS	2.48	3.62	6	<1	8	11.68	1.1	13.08	3.4	2.57	14.42	36.87	3.54	4.65	2	2.18	<1.00	12.11	3.3	3	17.28
Nitrite (w)	mg/l	0.5	UK DWS																					
Nitrate (w)	mg/l	50	UK DWS																					
Sulphate (w)	mg/l	250	UK DWS																					
Sulphide (w)	mg/l	No screening value																						
DOC (w)	mg/l	No screening value																						
PAHs																								
Naphthalene	µg/l	No screening value																						
Acenaphthylene	µg/l	No screening value																						
Acenaphthene	µg/l	0.01	LOD																					
Fluorene	µg/l	No screening value																						
Phenanthrene	µg/l	No screening value																						
Anthracene	µg/l	0.1	EQS																					
Fluoranthene	µg/l	No screening value																						
Pyrene	µg/l	No screening value																						
Benzo(a)anthracene	µg/l	No screening value																						
Chrysene	µg/l	0.01	LOD																					
Benzo(b)fluoranthene*	µg/l	No screening value																						
Benzo(k)fluoranthene*	µg/l	No screening value																						
Benzo(a)pyrene	µg/l	0.01	UK DWS																					
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																						
Dibenz(a,h)anthracene	µg/l	No screening value																						
Benzo(ghi)perylene*	µg/l	No screening value																						
Total PAH (sum of 16)	µg/l	0.1	UK DWS																					
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																					
Metals																								
Arsenic (dissolved)	µg/l	10	UK DWS	5	<1	<1	2	2	2	<1	3	1	4	1	9	2	<1	<1	2	1	12	5	2	1
Boron (dissolved)	µg/l	1000	UK DWS																					
Cadmium (dissolved)	µg/l	5	UK DWS	<1	<1	<1	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value																						
Copper (dissolved)	µg/l	2000	UK DWS	18	2	<1	15	17	12	2	30	16	13	17	55	51	16	5	15	7	16	19	14	8
Chromium (dissolved)	µg/l	50	UK DWS	2	<1	<1	4	<1	<1	<1	9	1	<1	1	2	2	<1	<1	1	2	24	3	2	1
Chromium (hexavalent) (w)	mg/l	50	UK DWS																					
Chromium (trivalent) (w)	mg/l	50	UK DWS																					
Lead (dissolved)	µg/l	10	UK DWS	16	<0.001	<1	28	9	8	<1	83	12	2	19	26	30	13	3	27	8	40	46	15	8
Manganese (dissolved)	µg/l	50	UK DWS																					
Magnesium (dissolved)	mg/l	No screening value																						
Mercury (dissolved)	µg/l	1	UK DWS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value		<1	<1	<1	<1	<1	<1	<1	<1	<1	4	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	3	<1	<1	3	2	2	<1	2	3	5	3	12	6	3	<1	9	2	11	4	3	3
Potassium (dissolved)	mg/l	No screening value																						
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sodium (dissolved)	µg/l	200	UK DWS																					
Vanadium (dissolved)	µg/l	No screening value																						
Zinc (dissolved)	µg/l	No screening value		24	6	1	21	9	13	3	10	12	9	15	39	34	11	6	42	7	35	33	11	6
BTEX																								
Benzene	µg/l	1	UK DWS																					
Toluene	µg/l	700	WHO DWS																					
Ethylbenzene	µg/l	300	WHO DWS																					
p & m-xylene	µg/l	500	WHO DWS																					
o-xylene	µg/l	500	WHO DWS																					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																						
TPH																								
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS																					
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS																					
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																						
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																						
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																						
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS																					
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS																					
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS																					
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																						
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																						

Sample Reference				BH KTB025 (leachate)	BH KTB028 (leachate)
Depth (m)				0.5	0.3
Date Sampled					
	Units	GAC	Source		
General Inorganics					
pH (w)	pH	>6.5 x <9.5	UK DWS	7.5	6.74
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	24	44
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value			
Hardness Total	mg/l Ca CO3	No screening value			
Total Suspended Solids (w)	mg/l	No screening value			
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS		
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value			
Chloride (w)	mg/l	250	UK DWS	7.44	2
Nitrite (w)	mg/l	0.5	UK DWS		
Nitrate (w)	mg/l	50	UK DWS		
Sulphate (w)	mg/l	250	UK DWS		
Sulphide (w)	mg/l	No screening value			
DOC (w)	mg/l	No screening value			
PAHs					
Naphthalene	µg/l	No screening value			
Acenaphthylene	µg/l	No screening value			
Acenaphthene	µg/l	0.01	LOD		
Fluorene	µg/l	No screening value			
Phenanthrene	µg/l	No screening value			
Anthracene	µg/l	0.1	EQS		
Fluoranthene	µg/l	No screening value			
Pyrene	µg/l	No screening value			
Benzo(a)anthracene	µg/l	No screening value			
Chrysene	µg/l	0.01	LOD		
Benzo(b)fluoranthene*	µg/l	No screening value			
Benzo(k)fluoranthene*	µg/l	No screening value			
Benzo(a)pyrene	µg/l	0.01	UK DWS		
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value			
Dibenz(a,h)anthracene	µg/l	No screening value			
Benzo(ghi)perylene*	µg/l	No screening value			
Total PAH (sum of 16)	µg/l	0.1	UK DWS		
Total PAH (sum of 4*)	µg/l	0.1	UK DWS		
Metals					
Arsenic (dissolved)	µg/l	10	UK DWS	4	<1
Boron (dissolved)	µg/l	1000	UK DWS		
Cadmium (dissolved)	µg/l	5	UK DWS	<1	<1
Calcium (dissolved)	mg/l	No screening value			
Copper (dissolved)	µg/l	2000	UK DWS	11	13
Chromium (dissolved)	µg/l	50	UK DWS	8	<1
Chromium (hexavalent) (w)	mg/l	50	UK DWS		
Chromium (trivalent) (w)	mg/l	50	UK DWS		
Lead (dissolved)	µg/l	10	UK DWS	4	10
Manganese (dissolved)	µg/l	50	UK DWS		
Magnesium (dissolved)	mg/l	No screening value			
Mercury (dissolved)	µg/l	1	UK DWS	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value		25	<1
Nickel (dissolved)	µg/l	20	UK DWS	1	3
Potassium (dissolved)	mg/l	No screening value			
Selenium (dissolved)	µg/l	10	UK DWS	6	<1
Sodium (dissolved)	µg/l	200	UK DWS		
Vanadium (dissolved)	µg/l	No screening value			
Zinc (dissolved)	µg/l	No screening value		63	11
BTEX					
Benzene	µg/l	1	UK DWS		
Toluene	µg/l	700	WHO DWS		
Ethylbenzene	µg/l	300	WHO DWS		
p & m-xylene	µg/l	500	WHO DWS		
o-xylene	µg/l	500	WHO DWS		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value			
TPH					
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS		
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS		
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS		
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS		
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS		
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value			
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value			
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value			
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS		
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS		
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS		
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS		
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS		
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS		
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS		
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value			
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value			

D.4 KTA Human Health and Controlled Waters Screeners

A66 Temple Sowerby to Appleby (Crackenthorpe)
Exceedance Summary

Strata Selected:	MG
%SOM	3.97
SOM (from TOC)	3.752269
SOM (from FOC)	

						1% SOM						2.5% SOM						6% SOM					
Contaminant	Number of samples Tested	Min	Max	Location of Max	Strate of Max	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)
Metals																							
Barium	2	59	102	TP KTA011	CLAY	2	0	2	0	0	0	2	0	2	0	0	0	0	0	2	0	0	0
Inorganics																							
pH	82	4.78	8.88	TP KTA008	SILT	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60

GE A5.1
A66 Temple Sowerby to Appleby (Crackenthorpe)
Soil Sample Screener
1% POS - Park

Lab No.																							
Sample ID													TP KTA002	TP KTA002	TP KTA003	TP KTA003	TP KTA004	TP KTA004	TP KTA005	TP KTA005	TP KTA007	TP KTA007	TP KTA008	TP KTA008	BH KTA003	BH KTA003	BH KTA005
Depth													0.20	0.35	0.30	2.00	0.20	1.00	0.20	0.50	0.50	1.00	0.10	2.50	0.30	1.50	0.3
Strata													TOPSOIL	SILT	SAND	CLAY	TOPSOIL	CLAY	TOPSOIL	CLAY	SILT	CLAY	MG	SILT	MG	SAND	MG
Sample Type																											
Date													15/02/2021	15/02/2021	15/02/2021	15/02/2021	18/02/2021	18/02/2021	17/02/2021	17/02/2021	17/02/2021	17/02/2021	17/02/2021	17/02/2021	03/03/2021	03/03/2021	04/03/2021
Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit POS (Park) 1% SOM															
Metals																											
Antimony	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	3090.00															
Arsenic	83	0	LOD	12.00	TP KTA008	0.10	MG	0	mg/kg	C4SL	0	170.00	1.00	<1	<1	2.00	2.00	4.00	3.00	2.00	<1	3.00	12.00	3.00	<1	2.00	3.00
Barium	2	0	59.00	102.00	TP KTA011	1.50	CLAY	0	mg/kg	AtkinsAtrisk	0	5770.00															
Beryllium	2	0	LOD	0.50	TP KTA011	1.50	CLAY	0	mg/kg	S4UL	0	63.00															
Boron, Water Soluble	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	46000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	83	0	LOD	1.30	TP KTA019	0.20	MG	0	mg/kg	C4SL	0	880.00	<0.5	<0.5	<0.5	0.70	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.60	<0.5	<0.5	0.70	<0.5
Chromium	83	0	4.00	32.00	BH KTA011	1.20	CLAY	0	mg/kg	S4UL	0	33000.00	10.00	15.00	11.00	26.00	10.00	16.00	12.00	12.00	11.00	17.00	10.00	14.00	12.00	19.00	12.00
Chromium, Hexavalent	83	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	83	0	LOD	142.00	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	44000.00	7.00	4.00	2.00	9.00	5.00	8.00	5.00	5.00	8.00	6.00	142.00	8.00	5.00	7.00	9.00
Lead	83	0	3.00	43.00	TP KTA008	0.10	MG	0	mg/kg	C4SL	0	1300.00	23.00	12.00	9.00	8.00	19.00	20.00	19.00	5.00	11.00	6.00	43.00	7.00	12.00	7.00	19.00
Mercury	83	0	LOD	0.41	TP KTA016	0.90	MG	0	mg/kg	S4UL	0	30.00	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	2880.00															
Nickel	83	0	2.00	38.00	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	3400.00	6.00	9.00	5.00	21.00	6.00	15.00	8.00	13.00	6.00	11.00	38.00	13.00	6.00	14.00	7.00
Selenium	83	0	LOD	1.00	BH KTA005	1.00	CLAY	0	mg/kg	S4UL	0	1800.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	2	0	19.00	21.00	TP KTA011	0.2	TOPSOIL	0	mg/kg	S4UL	0	5000.00															
Zinc	83	0	LOD	72.00	TP KTA019	0.50	MG	0	mg/kg	S4UL	0	170000.00	37.00	21.00	15.00	24.00	24.00	23.00	27.00	14.00	20.00	16.00	55.00	22.00	22.00	22.00	29.00
Inorganics																											
pH	82	60	4.78	8.88	TP KTA008	2.50	SILT	0	pH Units	-	0	7.0-9.0	6.11	6.09	5.83	5.85	6.76	6.81	5.68	6.68	5.91	6.03	7.72	8.88	6.85	8.27	6.54
Cyanide, Free	41	0	LOD	LOD	BH KTA003	0.30	MG	0	mg/kg	AtkinsAtrisk	0	34.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			<1
Soil Organic Matter (SOM)	82	0	LOD	44.40	TP KTA008	0.10	MG	0	%	-	0		7.80	2.00	1.70	0.20	1.90	0.30	2.10	0.20	1.90	0.20	44.40	<0.1	4.10	0.20	2.10
Organic matter (TOC)	82	0	0.05	25.80	TP KTA008	0.10	MG	0	%	-	0		4.50	1.16	1.00	0.12	1.09	0.14	1.22	0.15	1.13	0.10	25.80	0.05	2.35	0.12	1.23
Sulphide	81	0	LOD	37.00	BH KTA009	0.20	TOPSOIL	0	mg/kg	-	0		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Asbestos in Soil	42	0			BH KTA003	0.30	MG	0	-	-	0	Detected	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD			NAD
Asbestos Quantification	42	0			BH KTA003	0.30	MG	0	-	-	0	Detected	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			N/A
Phenols																											
Total Phenols	41	0	LOD	0.90	BH KTA020	0.20	MG	0	mg/kg	S4UL	0	760.00	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			<0.2
Petroleum Hydrocarbons																											
Aliphatic C5-C6	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	83	0	LOD	4.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	S4UL	0	450000.00	4.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	83	0	LOD	19.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	S4UL	0	450000.00	19.00	2.00	3.00	<1	5.00	<1	2.00	<1	2.00	<1	9.00	<1	8.00	6.00	3.00
Aliphatic C5-C35	83	0	LOD	23.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	-	0		23.00	2.00	3.00	<1	5.00	<1	2.00	<1	2.00	<1	11.00	<1	8.00	6.00	3.00
Aromatic C5-C7	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	7200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	9200.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	83	0	LOD	4.00	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	10000.00	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	4.00	<1	<1	<1	<1
Aromatic C16-C21	83	0	LOD	10.00	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	7600.00	3.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	10.00	<1	1.00	<1	<1
Aromatic C21-C35	83	0	LOD	42.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	S4UL	0	7800.00	42.00	2.00	4.00	<1	6.00	<1	3.00	<1	3.00	<1	20.00	<1	9.00	2.00	3.00
Aromatic C5-C35	83	0	LOD	47.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	-	0		47.00	2.00	4.00	<1	6.00	<1	3.00	<1	3.00	<1	34.00	<1	10.00	2.00	3.00
TPH Ali/Aro Total	83	0	LOD	70.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	-	0		70.00	4.00	6.00	<1	10.00	<1	5.00	<1	6.00	<1	45.00	<1	18.00	8.00	7.00
BTEX																											
Benzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	87000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	83	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																											
Naphthalene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	83	0	LOD	0.03	BH KTA021	0.30	TOPSOIL	0	mg/kg	S4UL	0	29000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
Fluorene	83	0	LOD	0.21	BH KTA021	0.30	TOPSOIL	0	mg/kg	S4UL	0	20000.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	83	0	LOD	5.03	BH KTA004	1.50	CLAY	0	mg/kg	S4UL	0	6200.00	0.07	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	0.15	<0.03	<0.03	<0.03	<0.03
Anthracene	83	0	LOD	0.25	BH KTA021	0.30	TOPSOIL	0	mg/kg	S4UL	0	150000.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.08	<0.02	<0.02	<0.02	<0.02
Fluoranthene	83	0	LOD	0.45	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	6300.00	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	<0.08	<0.08	<0.08	0.45	<0.08	<0.08	<0.08	<0.08
Pyrene	83	0	LOD	0.39	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	15000.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.39	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	49.00	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.26	<0.04	<0.04	<0.04	<0.04
Chrysene	83	0	LOD	0.34	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	93.00	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.34	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	83	0	LOD	0.40	BH KTA021	0.30	TOPSOIL	0	mg/kg	S4UL	0	13.00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	0.38	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	83	0	LOD	0.13	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	370.00	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.13	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	C4SL	0	21.00	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.04	<0.04	<0.04	<0.04	0.26	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	83	0	LOD	0.15	TP KTA008	0.10	MG	0	mg/kg	S4UL	0	150.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.15	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	83	0	LOD	0.14	BH KTA021	0.30	TOPSOIL	0	mg/kg	S4UL	0	1.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	83	0	LOD	0.32	BH KTA021	0.30	TOPSOIL	0	mg/kg	S4UL	0	1400.00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	83	0	LOD	2.79	TP KTA008	0.10	MG	0	mg/kg	-	0		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.22	<0.08	<0.08	<0.08	2.79	<0.08	<0.08	<0.08	<0.08

GE A5.1
A66 Temple Sowerby to Appleby (Crackenthorpe)
Soil Sample Screener
1% POS - Park

Lab No.																							
Sample ID										BH KTA005	TP KTA015	TP KTA015	TP KTA015	TP KTA011	TP KTA011	TP KTA016	TP KTA016	TP KTA017	TP KTA017	TP KTA017	TP KTA020	TP KTA020	TP KTA018	TP KTA018	TP KTA019	TP KTA019	TP KTA019
Depth										1.00	0.20	0.60	1.50	0.2	1.50	0.50	0.90	0.20	0.50	2.00	0.20	2.50	0.20	0.90	0.20	0.50	1.20
Strata										CLAY	MG	CLAY	CLAY	TOPSOIL	CLAY	MG	MG	TOPSOIL	CLAY	CLAY	MG	CLAY	TOPSOIL	CLAY	MG	MG	CLAY
Sample Type																											
Date										04/03/2021	04/03/2021	04/03/2021	04/03/2021	24/02/2021	24/02/2021	08/03/2021	08/03/2021	08/03/2021	08/03/2021	08/03/2021	25/02/2021	25/02/2021	09/03/2021	09/03/2021	09/03/2021	09/03/2021	09/03/2021
Sample Matrix Code	**No. of Samples Tested**	**No. of Exceedances**	**Minimum**	**Maximum**	**Location of Max**	**Depth of Max**	**Strata**	Method Code	Units																		
Metals																											
Antimony	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg					<5	<5												
Arsenic	83	0	LOD	12.00	TP KTA008	0.10	MG	0	mg/kg	4.00	4.00	<1	3.00	2.00	4.00	2.00	6.00	2.00	2.00	4.00	2.00	<1	4.00	3.00	5.00	3.00	2.00
Barium	2	0	59.00	102.00	TP KTA011	1.50	CLAY	0	mg/kg					59.00	102.00												
Beryllium	2	0	LOD	0.50	TP KTA011	1.50	CLAY	0	mg/kg					<0.5	0.50												
Boron, Water Soluble	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	83	0	LOD	1.30	TP KTA019	0.20	MG	0	mg/kg	0.70	0.90	0.70	0.80	0.50	0.90	0.90	1.00	0.60	0.90	0.90	<0.5	0.60	<0.5	0.60	1.30	<0.5	<0.5
Chromium	83	0	4.00	32.00	BH KTA011	1.20	CLAY	0	mg/kg	15.00	21.00	19.00	18.00	14.00	18.00	20.00	20.00	16.00	25.00	21.00	18.00	25.00	19.00	26.00	15.00	10.00	9.00
Chromium, Hexavalent	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	83	0	LOD	142.00	TP KTA008	0.10	MG	0	mg/kg	14.00	11.00	9.00	8.00	8.00	11.00	4.00	10.00	4.00	9.00	10.00	5.00	8.00	7.00	11.00	15.00	6.00	3.00
Lead	83	0	3.00	43.00	TP KTA008	0.10	MG	0	mg/kg	11.00	18.00	8.00	11.00	18.00	11.00	8.00	9.00	9.00	9.00	9.00	10.00	8.00	15.00	8.00	12.00	20.00	7.00
Mercury	83	0	LOD	0.41	TP KTA016	0.90	MG	0	mg/kg	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	0.41	<0.17	<0.17	0.33	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg					<1	<1												
Nickel	83	0	2.00	38.00	TP KTA008	0.10	MG	0	mg/kg	11.00	13.00	12.00	16.00	7.00	18.00	8.00	19.00	8.00	20.00	18.00	10.00	20.00	11.00	16.00	26.00	5.00	7.00
Selenium	83	0	LOD	1.00	BH KTA005	1.00	CLAY	0	mg/kg	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	2	0	19.00	21.00	TP KTA011	0.2	TOPSOIL	0	mg/kg					21.00	19.00												
Zinc	83	0	LOD	72.00	TP KTA019	0.50	MG	0	mg/kg	23.00	44.00	19.00	24.00	34.00	33.00	14.00	30.00	16.00	23.00	30.00	20.00	28.00	24.00	23.00	60.00	72.00	50.00
Inorganics																											
pH	82	60	4.78	8.88	TP KTA008	2.50	SILT	0	pH Units	6.60	6.48	7.43	7.45	7.26	0.00	6.04	8.03	5.82	6.50	7.93	6.30	7.94	6.19	6.54	6.84	7.11	7.03
Cyanide, Free	41	0	LOD	LOD	BH KTA003	0.30	MG	0	mg/kg		<1	<1	<1	<1	<1	<1					<1	<1	<1		<1	<1	
Soil Organic Matter (SOM)	82	0	LOD	44.40	TP KTA008	0.10	MG	0	%	0.40	2.40	0.20	0.20	2.90		0.50	0.20	1.30	0.30	0.20	0.60	<0.1	1.30	0.30	3.00	0.80	0.20
Organic matter (TOC)	82	0	0.05	25.80	TP KTA008	0.10	MG	0	%	0.21	1.40	0.09	0.08	1.68		0.30	0.10	0.71	0.20	0.13	0.33	0.07	0.74	0.20	1.72	0.44	0.11
Sulphide	81	0	LOD	37.00	BH KTA009	0.20	TOPSOIL	0	mg/kg	<5	<5	<5	<5	<5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Asbestos in Soil	42	0			BH KTA003	0.30	MG	0	-		NAD	NAD	NAD	NAD		NAD		NAD	NAD			NAD		NAD		NAD	NAD	
Asbestos Quantification	42	0			BH KTA003	0.30	MG	0	-		N/A	N/A	N/A	N/A		N/A		N/A	N/A			N/A		N/A		N/A	N/A	
Phenols																											
Total Phenols	41	0	LOD	0.90	BH KTA020	0.20	MG	0	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2					<0.2	<0.2	<0.2		<0.2	<0.2	
Petroleum Hydrocarbons																											
Aliphatic C5-C6	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	83	0	LOD	4.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	83	0	LOD	19.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	9.00	<1	<1	9.00	<1	<1	<1	4.00	<1	1.00	2.00	<1	<1	<1	18.00	6.00	<1
Aliphatic C5-C35	83	0	LOD	23.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	9.00	<1	<1	9.00	<1	<1	<1	4.00	<1	1.00	2.00	<1	<1	<1	18.00	6.00	<1
Aromatic C5-C7	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	83	0	LOD	4.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	83	0	LOD	10.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1
Aromatic C21-C35	83	0	LOD	42.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	6.00	<1	<1	6.00	<1	<1	<1	7.00	<1	<1	<1	<1	<1	<1	14.00	6.00	<1
Aromatic C5-C35	83	0	LOD	47.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	6.00	<1	<1	8.00	<1	<1	<1	7.00	<1	<1	<1	<1	<1	<1	15.00	6.00	<1
TPH Ali/Aro Total	83	0	LOD	70.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	15.00	<1	<1	17.00	<1	<1	<1	12.00	<1	1.00	2.00	<1	<1	<1	33.00	13.00	<1
BTEX																											
Benzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																											
Naphthalene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.01	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	83	0	LOD	0.03	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	83	0	LOD	0.21	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	83	0	LOD	5.03	BH KTA004	1.50	CLAY	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.04	<0.04	<0.04	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03
Anthracene	83	0	LOD	0.25	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	83	0	LOD	0.45	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.05	<0.05	<0.05	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	83	0	LOD	0.39	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.06	<0.06	<0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	83	0	LOD	0.34	TP KTA008	0.10	MG	0	mg/kg	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.04	<0.04	<0.04	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	83	0	LOD	0.40	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.08	<0.08	<0.08	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05
Benzo(k)fluoranthene	83	0	LOD	0.13	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.01	<0.01	<0.01	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.03	<0.03	<0.03	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	83	0	LOD	0.15	TP KTA008	0.10	MG	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	<0.03
Dibenzo(a,h)anthracene	83	0	LOD	0.14	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.03	<0.03	<0.03	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	83	0	LOD	0.32	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.07	<0.07	<0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	83	0	LOD	2.79	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.20	<0.08	<0.08

GE A5.1
A66 Temple Sowerby to Appleby (Crackenthorpe)
Soil Sample Screener
1% POS - Park

Lab No.																						
Sample ID										BH KTA006	BH KTA006	BH KTA011	BH KTA011	BH KTA009	BH KTA009	BH KTA008	BH KTA008	BH KTA010	BH KTA010	TP KTA006	TP KTA006	BH KTA017
Depth										0.30	1.50	0.20	1.20	0.20	0.50	0.20	0.50	0.20	1.20	0.20	1.20	0.30
Strata										TOPSOIL	SAND	TOPSOIL	CLAY	TOPSOIL	CLAY	TOPSOIL	SAND	TOPSOIL	CLAY	TOPSOIL	CLAY	CLAY
Sample Type																						
Date										04/03/2021	04/03/2021	11-Mar-21	11-Mar-21	16-Mar-21	16-Mar-21	17-Mar-21	17-Mar-21	15-Mar-21	15-Mar-21	16-Mar-21	16-Mar-21	15-Mar-21
Sample Matrix Code	**No. of Samples Tested**	**No. of Exceedances**	**Minimum**	**Maximum**	**Location of Max**	**Depth of Max**	**Strata**	Method Code	Units													
Metals																						
Antimony	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg													
Arsenic	83	0	LOD	12.00	TP KTA008	0.10	MG	0	mg/kg	3.00	4.00	3.00	4.00	3.00	7.00	3.00	5.00	2.00	<1	3.00	4.00	3.00
Barium	2	0	59.00	102.00	TP KTA011	1.50	CLAY	0	mg/kg													
Beryllium	2	0	LOD	0.50	TP KTA011	1.50	CLAY	0	mg/kg													
Boron, Water Soluble	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	83	0	LOD	1.30	TP KTA019	0.20	MG	0	mg/kg	<0.5	0.70	<0.5	0.80	<0.5	<0.5	<0.5	0.80	<0.5	<0.5	<0.5	<0.5	0.50
Chromium	83	0	4.00	32.00	BH KTA011	1.20	CLAY	0	mg/kg	14.00	16.00	15.00	32.00	21.00	17.00	15.00	18.00	18.00	20.00	16.00	18.00	21.00
Chromium, Hexavalent	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	83	0	LOD	142.00	TP KTA008	0.10	MG	0	mg/kg	9.00	10.00	5.00	12.00	4.00	7.00	5.00	11.00	4.00	8.00	11.00	13.00	8.00
Lead	83	0	3.00	43.00	TP KTA008	0.10	MG	0	mg/kg	20.00	8.00	21.00	14.00	17.00	9.00	16.00	9.00	16.00	8.00	26.00	11.00	10.00
Mercury	83	0	LOD	0.41	TP KTA016	0.90	MG	0	mg/kg	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg													
Nickel	83	0	2.00	38.00	TP KTA008	0.10	MG	0	mg/kg	7.00	11.00	6.00	21.00	8.00	11.00	8.00	18.00	8.00	16.00	7.00	13.00	13.00
Selenium	83	0	LOD	1.00	BH KTA005	1.00	CLAY	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	2	0	19.00	21.00	TP KTA011	0.2	TOPSOIL	0	mg/kg													
Zinc	83	0	LOD	72.00	TP KTA019	0.50	MG	0	mg/kg	30.00	24.00	24.00	31.00	24.00	16.00	24.00	23.00	20.00	26.00	41.00	21.00	23.00
Inorganics																						
pH	82	60	4.78	8.88	TP KTA008	2.50	SILT	0	pH Units	5.70	7.68	6.44	6.86	5.12	5.87	4.78	8.26	5.44	6.97	6.39	6.50	6.09
Cyanide, Free	41	0	LOD	LOD	BH KTA003	0.30	MG	0	mg/kg	<1						<1						
Soil Organic Matter (SOM)	82	0	LOD	44.40	TP KTA008	0.10	MG	0	%	2.20	0.20	3.50	0.50	2.70	0.50	2.40	0.20	3.10	0.30	3.70	0.30	0.70
Organic matter (TOC)	82	0	0.05	25.80	TP KTA008	0.10	MG	0	%	1.26	0.11	2.04	0.27	1.58	0.27	1.43	0.11	1.78	0.17	2.12	0.15	0.38
Sulphide	81	0	LOD	37.00	BH KTA009	0.20	TOPSOIL	0	mg/kg	<5	<5	<5	<5	37.00	29.00	<5	<5	<5	<5	<5	<5	<5
Asbestos in Soil	42	0			BH KTA003	0.30	MG	0	-	NAD						NAD						
Asbestos Quantification	42	0			BH KTA003	0.30	MG	0	-	N/A						N/A						
Phenols																						
Total Phenols	41	0	LOD	0.90	BH KTA020	0.20	MG	0	mg/kg	<0.2						<0.2						
Petroleum Hydrocarbons																						
Aliphatic C5-C6	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	83	0	LOD	4.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	83	0	LOD	19.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	4.00	<1	7.00	<1	5.00	<1	3.00	<1	6.00	<1	13.00	<1	1.00
Aliphatic C5-C35	83	0	LOD	23.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	4.00	<1	7.00	<1	5.00	<1	3.00	<1	6.00	<1	13.00	<1	1.00
Aromatic C5-C7	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	83	0	LOD	4.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	83	0	LOD	10.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.00	<1	<1
Aromatic C21-C35	83	0	LOD	42.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	2.00	<1	5.00	<1	6.00	<1	2.00	<1	6.00	<1	12.00	<1	<1
Aromatic C5-C35	83	0	LOD	47.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	2.00	<1	5.00	<1	6.00	<1	2.00	<1	6.00	<1	14.00	<1	<1
TPH Ali/Aro Total	83	0	LOD	70.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	6.00	<1	12.00	<1	11.00	<1	5.00	<1	13.00	<1	28.00	<1	<1
BTEX																						
Benzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																						
Naphthalene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	83	0	LOD	0.03	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	83	0	LOD	0.21	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	83	0	LOD	5.03	BH KTA004	1.50	CLAY	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	1.03
Anthracene	83	0	LOD	0.25	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	83	0	LOD	0.45	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	83	0	LOD	0.39	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	83	0	LOD	0.34	TP KTA008	0.10	MG	0	mg/kg	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	83	0	LOD	0.40	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	83	0	LOD	0.13	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	83	0	LOD	0.15	TP KTA008	0.10	MG	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	83	0	LOD	0.14	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	83	0	LOD	0.32	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	83	0	LOD	2.79	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Lab No.																						
Sample ID										BH KTA015	BH KTA015	WS KTA001	BH KTA007									
Depth										0.10	1.20	0.10	0.20									
Strata										MG	CLAY	MG	TOPSOIL									
Sample Type																						
Date										22-Mar-21	22-Mar-21	23-Mar-21	18-Mar-21									
Sample Matrix Code	**No. of Samples Tested**	**No. of Exceedances**	**Minimum**	**Maximum**	**Location of Max**	**Depth of Max**	**Strata**	Method Code	Units													
Metals																						
Antimony	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg													
Arsenic	83	0	LOD	12.00	TP KTA008	0.10	MG	0	mg/kg	3.00	4.00	3.00	2.00									
Barium	2	0	59.00	102.00	TP KTA011	1.50	CLAY	0	mg/kg													
Beryllium	2	0	LOD	0.50	TP KTA011	1.50	CLAY	0	mg/kg													
Boron, Water Soluble	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1.0	<1.0	<1.0	<1.0									
Cadmium	83	0	LOD	1.30	TP KTA019	0.20	MG	0	mg/kg	<0.5	0.60	<0.5	<0.5									
Chromium	83	0	4.00	32.00	BH KTA011	1.20	CLAY	0	mg/kg	13.00	18.00	14.00	18.00									
Chromium, Hexavalent	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1									
Copper	83	0	LOD	142.00	TP KTA008	0.10	MG	0	mg/kg	7.00	9.00	7.00	6.00									
Lead	83	0	3.00	43.00	TP KTA008	0.10	MG	0	mg/kg	11.00	8.00	11.00	17.00									
Mercury	83	0	LOD	0.41	TP KTA016	0.90	MG	0	mg/kg	<0.17	<0.17	<0.17	<0.17									
Molybdenum	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg													
Nickel	83	0	2.00	38.00	TP KTA008	0.10	MG	0	mg/kg	14.00	11.00	11.00	8.00									
Selenium	83	0	LOD	1.00	BH KTA005	1.00	CLAY	0	mg/kg	<1	<1	<1	<1									
Vanadium	2	0	19.00	21.00	TP KTA011	0.2	TOPSOIL	0	mg/kg													
Zinc	83	0	LOD	72.00	TP KTA019	0.50	MG	0	mg/kg	24.00	20.00	22.00	28.00									
Inorganics																						
pH	82	60	4.78	8.88	TP KTA008	2.50	SILT	0	pH Units	5.89	6.94	5.22	5.88									
Cyanide, Free	41	0	LOD	LOD	BH KTA003	0.30	MG	0	mg/kg	<1		<1	<1									
Soil Organic Matter (SOM)	82	0	LOD	44.40	TP KTA008	0.10	MG	0	%	2.30	0.20	0.90	4.40									
Organic matter (TOC)	82	0	0.05	25.80	TP KTA008	0.10	MG	0	%	1.32	0.12	0.48	2.59									
Sulphide	81	0	LOD	37.00	BH KTA009	0.20	TOPSOIL	0	mg/kg	<5	<5	20.00	21.00									
Asbestos in Soil	42	0			BH KTA003	0.30	MG	0	-	NAD		NAD	NAD									
Asbestos Quantification	42	0			BH KTA003	0.30	MG	0	-	N/A		N/A	N/A									
Phenols																						
Total Phenols	41	0	LOD	0.90	BH KTA020	0.20	MG	0	mg/kg	<0.2		<0.2	<0.2									
Petroleum Hydrocarbons																						
Aliphatic C5-C6	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Aliphatic C6-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Aliphatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1									
Aliphatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1									
Aliphatic C12-C16	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1									
Aliphatic C16-C21	83	0	LOD	4.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	<1	<1	<1									
Aliphatic C21-C35	83	0	LOD	19.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	5.00	<1	7.00	9.00									
Aliphatic C5-C35	83	0	LOD	23.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	5.00	<1	7.00	9.00									
Aromatic C5-C7	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Aromatic C7-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Aromatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1									
Aromatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1									
Aromatic C12-C16	83	0	LOD	4.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1									
Aromatic C16-C21	83	0	LOD	10.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1									
Aromatic C21-C35	83	0	LOD	42.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	6.00	<1	4.00	12.00									
Aromatic C5-C35	83	0	LOD	47.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	6.00	<1	4.00	12.00									
TPH Ali/Aro Total	83	0	LOD	70.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	11.00	<1	11.00	21.00									
BTEX																						
Benzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Toluene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Ethylbenzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
O-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
M-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
P-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Methyl Tert-Butyl Ether (MTBE)	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
PAHs																						
Naphthalene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.03	<0.03	<0.03	<0.03									
Acenaphthylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Acenaphthene	83	0	LOD	0.03	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Fluorene	83	0	LOD	0.21	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01									
Phenanthrene	83	0	LOD	5.03	BH KTA004	1.50	CLAY	0	mg/kg	<0.03	<0.03	2.03	<0.03									
Anthracene	83	0	LOD	0.25	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.02	<0.02	<0.02	<0.02									
Fluoranthene	83	0	LOD	0.45	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08									
Pyrene	83	0	LOD	0.39	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07									
Benzo(a)anthracene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04									
Chrysene	83	0	LOD	0.34	TP KTA008	0.10	MG	0	mg/kg	<0.06	<0.06	<0.06	<0.06									
Benzo(b)fluoranthene	83	0	LOD	0.40	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05									
Benzo(k)fluoranthene	83	0	LOD	0.13	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07									
Benzo(a)pyrene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04									
Indeno(1,2,3-c,d)pyrene	83	0	LOD	0.15	TP KTA008	0.10	MG	0	mg/kg	<0.03	<0.03	<0.03	<0.03									
Dibenzo(a,h)anthracene	83	0	LOD	0.14	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.04	<0.04	<0.04	<0.04									
Benzo(g,h,i)perylene	83	0	LOD	0.32	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05									
PAH - USEPA 16, Total	83	0	LOD	2.79	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08									

GE A5.1
A66 Temple Sowerby to Appleby (Crackenthorpe)
Soil Sample Screener
1% POS - Park

Lab No.																							
Sample ID										BH KTA007	BH KTA019	BH KTA004	BH KTA004	BH KTA004	WS KTA002	BH KTA022	BH KTA022	BH KTA014	BH KTA014	TP KTA009	TP KTA009	BH KTA018	BH KTA018	TP KTA010	TP KTA010	BH KTA020	BH KTA020
Depth										1.20	1.00	0.30	0.50	1.50	0.40	0.30	1.00	0.20	1.20	0.90	3.20	0.30	1.50	0.20	2.20	0.20	0.50
Strata										SAND	CLAY	TOPSOIL	SAND	CLAY	MG	MG	CLAY	MG	SAND	CLAY	CLAY	TOPSOIL	CLAY	TOPSOIL	CLAY	MG	MG
Sample Type																											
Date										18-Mar-21	17-Mar-21	23-Mar-21	23-Mar-21	23-Mar-21	23-Mar-21	24-Mar-21	24-Mar-21	23-Mar-21	23-Mar-21	17-Mar-21	17-Mar-21	23-Mar-21	23-Mar-21	17-Mar-21	17-Mar-21	25-Mar-21	25-Mar-21
Sample Matrix Code	**No. of Samples Tested**	**No. of Exceedances**	**Minimum**	**Maximum**	**Location of Max**	**Depth of Max**	**Strata**	Method Code	Units																		
Metals																											
Antimony	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg																		
Arsenic	83	0	LOD	12.00	TP KTA008	0.10	MG	0	mg/kg	<1	3.00	2.00	<1	1.00	2.00	3.00	5.00	1.00	4.00	4.00	6.00	2.00	2.00	3.00	5.00	2.00	3.00
Barium	2	0	59.00	102.00	TP KTA011	1.50	CLAY	0	mg/kg																		
Beryllium	2	0	LOD	0.50	TP KTA011	1.50	CLAY	0	mg/kg																		
Boron, Water Soluble	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	83	0	LOD	1.30	TP KTA019	0.20	MG	0	mg/kg	<0.5	0.60	<0.5	<0.5	<0.5	0.60	<0.5	0.60	<0.5	0.90	0.70	0.70	<0.5	0.60	<0.5	0.80	0.60	0.60
Chromium	83	0	4.00	32.00	BH KTA011	1.20	CLAY	0	mg/kg	14.00	29.00	8.00	4.00	9.00	18.00	14.00	19.00	11.00	20.00	21.00	19.00	13.00	16.00	18.00	20.00	19.00	19.00
Chromium, Hexavalent	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	83	0	LOD	142.00	TP KTA008	0.10	MG	0	mg/kg	5.00	12.00	6.00	<1	3.00	7.00	9.00	11.00	5.00	9.00	10.00	12.00	15.00	11.00	5.00	9.00	7.00	7.00
Lead	83	0	3.00	43.00	TP KTA008	0.10	MG	0	mg/kg	6.00	12.00	16.00	3.00	8.00	10.00	14.00	12.00	13.00	11.00	11.00	12.00	31.00	13.00	16.00	10.00	21.00	11.00
Mercury	83	0	LOD	0.41	TP KTA016	0.90	MG	0	mg/kg	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg																		
Nickel	83	0	2.00	38.00	TP KTA008	0.10	MG	0	mg/kg	7.00	20.00	5.00	2.00	5.00	12.00	11.00	15.00	5.00	15.00	17.00	17.00	7.00	14.00	10.00	15.00	8.00	14.00
Selenium	83	0	LOD	1.00	BH KTA005	1.00	CLAY	0	mg/kg	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	2	0	19.00	21.00	TP KTA011	0.2	TOPSOIL	0	mg/kg																		
Zinc	83	0	LOD	72.00	TP KTA019	0.50	MG	0	mg/kg	21.00	28.00	16.00	<5	11.00	23.00	25.00	28.00	22.00	20.00	25.00	26.00	43.00	25.00	27.00	25.00	27.00	20.00
Inorganics																											
pH	82	60	4.78	8.88	TP KTA008	2.50	SILT	0	pH Units	6.75	7.37	5.61	5.87	5.89	5.98	7.65	8.18	6.08	6.95	5.67	6.25	6.12	6.81	4.82	7.71	5.89	6.97
Cyanide, Free	41	0	LOD	LOD	BH KTA003	0.30	MG	0	mg/kg			<1	<1	<1	<1	<1		<1	<1							<1	
Soil Organic Matter (SOM)	82	0	LOD	44.40	TP KTA008	0.10	MG	0	%	0.60	0.20	3.00	0.50	1.00	0.70	2.10	0.40	1.80	0.20	0.30	<0.1	4.10	3.80	2.30	<0.1	3.30	0.60
Organic matter (TOC)	82	0	0.05	25.80	TP KTA008	0.10	MG	0	%	0.32	0.11	1.73	0.26	0.56	0.39	1.24	0.22	1.07	0.11	0.19	0.05	2.41	2.19	1.37	0.07	1.89	0.31
Sulphide	81	0	LOD	37.00	BH KTA009	0.20	TOPSOIL	0	mg/kg	13.00	14.00	<5	<5	13.00	12.00	34.00	28.00	8.00	9.00	<5	<5	<5	<5	31.00	<5	<5	<5
Asbestos in Soil	42	0			BH KTA003	0.30	MG	0	-						NAD	NAD		NAD	NAD							NAD	NAD
Asbestos Quantification	42	0			BH KTA003	0.30	MG	0	-						N/A	N/A		N/A	N/A							N/A	N/A
Phenols																											
Total Phenols	41	0	LOD	0.90	BH KTA020	0.20	MG	0	mg/kg			<0.2	<0.2	<0.2	<0.2	<0.2		<0.2	<0.2							0.90	
Petroleum Hydrocarbons																											
Aliphatic C5-C6	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	83	0	LOD	4.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	83	0	LOD	19.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	2.00	5.00	1.00	<1	<1	14.00	2.00	6.00	<1	<1	<1	6.00	<1	6.00	<1	8.00	<1
Aliphatic C5-C35	83	0	LOD	23.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	2.00	5.00	1.00	<1	<1	14.00	2.00	6.00	<1	<1	<1	6.00	<1	6.00	<1	8.00	<1
Aromatic C5-C7	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	83	0	LOD	4.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	83	0	LOD	10.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1
Aromatic C21-C35	83	0	LOD	42.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	<1	5.00	<1	<1	<1	5.00	1.00	6.00	<1	<1	<1	4.00	<1	4.00	<1	5.00	<1
Aromatic C5-C35	83	0	LOD	47.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	<1	6.00	<1	<1	<1	5.00	1.00	6.00	<1	<1	<1	4.00	<1	4.00	<1	6.00	<1
TPH Ali/Aro Total	83	0	LOD	70.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	2.00	11.00	2.00	<1	<1	19.00	3.00	13.00	<1	<1	<1	10.00	<1	10.00	<1	14.00	<1
BTEX																											
Benzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																											
Naphthalene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	83	0	LOD	0.03	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	83	0	LOD	0.21	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	83	0	LOD	5.03	BH KTA004	1.50	CLAY	0	mg/kg	3.03	<0.03	4.03	<0.03	5.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	83	0	LOD	0.25	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	83	0	LOD	0.45	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.13	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	83	0	LOD	0.39	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.11	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	83	0	LOD	0.34	TP KTA008	0.10	MG	0	mg/kg	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	83	0	LOD	0.40	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	83	0	LOD	0.13	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.08	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	83	0	LOD	0.15	TP KTA008	0.10	MG	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	83	0	LOD	0.14	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.09	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(g,h,i)perylene	83	0	LOD	0.32	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	83	0	LOD	2.79	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.73	<0.08	<0.08	<0.08	<0.08	<0.08

GE A5.1
A66 Temple Sowerby to Appleby (Crackenthorpe)
Soil Sample Screener
1% POS - Park

Lab No.																				
Sample ID										BH KTA013	BH KTA013	TP KTA012	TP KTA012	BH KTA017	BH KTA017	BH KTA012	BH KTA012	BH KTA021	BH KTA021	TP KTA013	TP KTA013	TP KTA014	TP KTA014
Depth										0.20	1.20	0.20	0.40	0.30	1.00	0.10	1.20	0.30	0.50	0.20	0.50	0.20	0.60
Strata										MG	SAND	TOPSOIL	SAND	CLAY	CLAY	TOPSOIL	CLAY	TOPSOIL	CLAY	MG	MG	TOPSOIL	CLAY
Sample Type																							
Date										24-Mar-21	24-Mar-21	16-Apr-21	16-Apr-21	15/03/2021	15/03/2021	10/03/2021	10/03/2021	08/03/2021	08/03/2021	03/03/2021	03/03/2021	03/03/2021	03/03/2021
Sample Matrix Code	**No. of Samples Tested**	**No. of Exceedances**	**Minimum**	**Maximum**	**Location of Max**	**Depth of Max**	**Strata**	Method Code	Units														
Metals																							
Antimony	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg														
Arsenic	83	0	LOD	12.00	TP KTA008	0.10	MG	0	mg/kg	4.00	5.00	2.00	<1	3.00	3.00	6.00	4.00	2.00	3.00	<1	<1	2.00	6.00
Barium	2	0	59.00	102.00	TP KTA011	1.50	CLAY	0	mg/kg														
Beryllium	2	0	LOD	0.50	TP KTA011	1.50	CLAY	0	mg/kg														
Boron, Water Soluble	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	83	0	LOD	1.30	TP KTA019	0.20	MG	0	mg/kg	<0.5	0.70	0.60	0.60	0.50	<0.5	0.60	0.60	<0.5	<0.5	0.50	<0.5	<0.5	0.80
Chromium	83	0	4.00	32.00	BH KTA011	1.20	CLAY	0	mg/kg	12.00	19.00	19.00	17.00	21.00	12.00	19.00	17.00	14.00	15.00	13.00	11.00	15.00	18.00
Chromium, Hexavalent	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	83	0	LOD	142.00	TP KTA008	0.10	MG	0	mg/kg	7.00	10.00	4.00	3.00	8.00	7.00	14.00	9.00	7.00	6.00	4.00	4.00	5.00	10.00
Lead	83	0	3.00	43.00	TP KTA008	0.10	MG	0	mg/kg	17.00	10.00	19.00	11.00	10.00	6.00	16.00	11.00	12.00	10.00	11.00	7.00	14.00	10.00
Mercury	83	0	LOD	0.41	TP KTA016	0.90	MG	0	mg/kg	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Molybdenum	2	0	LOD	LOD	TP KTA002	0.20	TOPSOIL	0	mg/kg														
Nickel	83	0	2.00	38.00	TP KTA008	0.10	MG	0	mg/kg	6.00	13.00	10.00	10.00	13.00	11.00	11.00	12.00	11.00	10.00	8.00	7.00	8.00	12.00
Selenium	83	0	LOD	1.00	BH KTA005	1.00	CLAY	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	2	0	19.00	21.00	TP KTA011	0.2	TOPSOIL	0	mg/kg														
Zinc	83	0	LOD	72.00	TP KTA019	0.50	MG	0	mg/kg	25.00	22.00	24.00	20.00	23.00	19.00	41.00	21.00	22.00	18.00	21.00	13.00	25.00	21.00
Inorganics																							
pH	82	60	4.78	8.88	TP KTA008	2.50	SILT	0	pH Units	6.33	6.54	5.34	5.50	6.09	8.77	6.68	7.42	7.90	7.80	6.58	6.98	6.50	6.87
Cyanide, Free	41	0	LOD	LOD	BH KTA003	0.30	MG	0	mg/kg	<1		<1								<1		<1	
Soil Organic Matter (SOM)	82	0	LOD	44.40	TP KTA008	0.10	MG	0	%	<0.1	2.30	2.00	1.20	0.70	<0.1	3.40	0.20	1.40	0.50	1.30	0.30	1.50	0.20
Organic matter (TOC)	82	0	0.05	25.80	TP KTA008	0.10	MG	0	%	0.05	1.32	1.21	0.71	0.38	0.05	2.01	0.11	0.84	0.30	0.74	0.19	0.87	0.13
Sulphide	81	0	LOD	37.00	BH KTA009	0.20	TOPSOIL	0	mg/kg	<5	16.00	<5	<5	<5	16.00	<5	<5	<5	<5	<5	<5	<5	<5
Asbestos in Soil	42	0			BH KTA003	0.30	MG	0	-	NAD		NAD			NAD					NAD	NAD	NAD	NAD
Asbestos Quantification	42	0			BH KTA003	0.30	MG	0	-	N/A		N/A			N/A					N/A	N/A	N/A	N/A
Phenols																							
Total Phenols	41	0	LOD	0.90	BH KTA020	0.20	MG	0	mg/kg	<0.2		<0.2								<0.2		<0.2	
Petroleum Hydrocarbons																							
Aliphatic C5-C6	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	83	0	LOD	4.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	83	0	LOD	19.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	8.00	<1	2.00	<1	<1	1.00	16.00	<1	6.00	3.00	2.00	<1	3.00	<1
Aliphatic C5-C35	83	0	LOD	23.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	8.00	<1	2.00	<1	<1	1.00	16.00	<1	6.00	3.00	2.00	<1	3.00	<1
Aromatic C5-C7	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	83	0	LOD	4.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	83	0	LOD	10.00	TP KTA008	0.10	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	4.00	<1	<1	<1	<1	<1
Aromatic C21-C35	83	0	LOD	42.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	2.00	<1	2.00	<1	<1	<1	11.00	<1	19.00	6.00	3.00	<1	3.00	<1
Aromatic C5-C35	83	0	LOD	47.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	2.00	<1	2.00	<1	<1	<1	11.00	<1	23.00	6.00	3.00	<1	3.00	<1
TPH Ali/Aro Total	83	0	LOD	70.00	TP KTA002	0.20	TOPSOIL	0	mg/kg	10.00	<1	5.00	<1	<1	1.00	27.00	<1	29.00	9.00	5.00	<1	7.00	2.00
BTEX																							
Benzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																							
Naphthalene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	83	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	83	0	LOD	0.03	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
Fluorene	83	0	LOD	0.21	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	0.21	<0.04	<0.04	<0.04	<0.04	<0.04
Phenanthrene	83	0	LOD	5.03	BH KTA004	1.50	CLAY	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.04	<0.04	<0.04	<0.04	0.24	<0.04	<0.04	<0.04	<0.04	<0.04
Anthracene	83	0	LOD	0.25	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.25	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	83	0	LOD	0.45	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	83	0	LOD	0.39	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.10	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.06	<0.06	<0.06	<0.06	0.22	<0.06	<0.06	<0.06	<0.06	<0.06
Chrysene	83	0	LOD	0.34	TP KTA008	0.10	MG	0	mg/kg	<0.06	<0.06	<0.06	<0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(b)fluoranthene	83	0	LOD	0.40	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.08	<0.08	<0.08	<0.08	0.40	<0.08	<0.08	<0.08	<0.08	<0.08
Benzo(k)fluoranthene	83	0	LOD	0.13	TP KTA008	0.10	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)pyrene	83	0	LOD	0.26	TP KTA008	0.10	MG	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.03	<0.03	<0.03	<0.03	0.17	<0.03	<0.03	<0.03	<0.03	<0.03
Indeno(1,2,3-c,d)pyrene	83	0	LOD	0.15	TP KTA008	0.10	MG	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	83	0	LOD	0.14	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.06	<0.06	<0.06	<0.06	<0.03	<0.03	<0.03	<0.03	0.14	<0.03	<0.03	<0.03	<0.03	<0.03
Benzo(g,h,i)perylene	83	0	LOD	0.32	BH KTA021	0.30	TOPSOIL	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.07	<0.07	<0.07	<0.07	0.32	<0.07	<0.07	<0.07	<0.07	<0.07
PAH - USEPA 16, Total	83	0	LOD	2.79	TP KTA008	0.10	MG	0	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	2.23	<0.08	<0.08	<0.08	<0.08	<0.08

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D4.2 - KTA T1 WQS CWRA

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D4.2 - KTA T1 WQS CWRA
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000021

Rev	Suit. Code	Suitability		Purpose of Issue		
P02	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	10/12/21	10/12/21	13/12/21	14/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Reference				BH KTA015	BH KTA018	BH KTA021	BH KTA022	TP KTA002	TP KTA003	TP KTA004	TP KTA006	TP KTA008	TP KTA009	TP KTA011	TP KTA012	TP KTA013	TP KTA014	TP KTA015	TP KTA016	TP KTA017	TP KTA018	TP KTA019
Depth (m)				6.00	10.00	3.50	5.50	0.2	2	1.1	1.2	0.1	3.2	0.2	0.4	0.2	0.2	0.6	0.5	0.5	0.2	1.2
Sample Type				Groundwater	Groundwater	Groundwater	Groundwater	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				09/06/2021	09/06/2021	09/06/2021	09/06/2021	44243	44243	44250	17/03/2021	19/02/2021	18/03/2021	25/02/2021	20/04/2021	44319	44319	44320	44324	44324	44326	44326
	Units	GAC	Source																			
General Inorganics																						
pH (w)	pH	>6.5 x <9.5	UK DWS	7.48	12.64	7.57	7.29	6.62	7.5	6.9	6.86	7.6	6.58	7.02	5.22	7.27	5.22	6.09	5.87	5.6	7.59	6.1
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS					160	46	64	74	158	42	108	20	33	36	31	16	19	28	31
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		687	2890	1854	788															
Hardness Total	mg/l Ca CO3	No screening value																				
Total Suspended Solids (w)	mg/l	No screening value																				
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS	0.78	0.17	0.05	0.57															
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																				
Chloride (w)	mg/l	250	UK DWS	51	77	113	11	10.34	3.69	7	12.46	1.93	9.8	<1.00	4.96	13.3	12.11	<1.00	14.3	7	5.02	42
Nitrite (w)	mg/l	0.5	UK DWS																			
Nitrate (w)	mg/l	50	UK DWS																			
Sulphate (w)	mg/l	250	UK DWS	61	336	265	16	16.22	6.79	11	10.33	<1.00	20.49	3.46	2.66	<1.00	<1.00	5.24	57.75	27	16.61	<1
Sulphide (w)	mg/l	No screening value		5.5	998	671.3	10.2															
DOC (w)	mg/l	No screening value																				
PAHs																						
Naphthalene	µg/l	130	EQS	<0.01	0.06	0.11	<0.01															
Acenaphthylene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01															
Acenaphthene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01															
Fluorene	µg/l	0.01	LOD	<0.01	<0.02	0.05	<0.01															
Phenanthrene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01															
Anthracene	µg/l	0.1	EQS	<0.01	<0.01	0.01	<0.01															
Fluoranthene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01															
Pyrene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01															
Benzo(a)anthracene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01															
Chrysene	µg/l	0.01	LOD	0.01	<0.01	<0.01	<0.01															
Benzo(b)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01															
Benzo(k)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01															
Benzo(a)pyrene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01															
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01															
Dibenz(a,h)anthracene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01															
Benzo(ghi)perylene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01															
Total PAH (sum of 16)	µg/l	0.1	UK DWS	0.01	0.06	0.17	<0.01															
Total PAH (sum of 4*)	µg/l	0.1	UK DWS	0	0	0	0															
Metals																						
Arsenic (dissolved)	µg/l	10	UK DWS	<1	3	3	1	5	<1	<1	<1	2	<1	7	<1	1	<1	<1	<1	<1	<1	2
Boron (dissolved)	µg/l	1000	UK DWS																			
Cadmium (dissolved)	µg/l	0.45	EQS	<0.2	<0.2	<0.2	<0.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value		82	23	168	150															
Copper (dissolved)	µg/l	1	EQS	28	44	24	26	22	<1	2	4	34	<1	10	11	9	9	<1	3	4	12	10
Chromium (dissolved)	µg/l	50	UK DWS					2	<1	<1	<1	<1	<1	<1	1	<1	1	<1	<1	<1	2	3
Chromium (hexavalent) (w)	mg/l	3.4	EQS	<0.01	0.03	<0.01	0.01															
Chromium (trivalent) (w)	mg/l	No screening value		<0.01	<0.01	<0.01	<0.01															
Lead (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	33	<5	<1	<1	3	<1	9	15	4	9	<1	16	8	12	11
Manganese (dissolved)	µg/l	50	UK DWS																			
Magnesium (dissolved)	mg/l	No screening value																				
Mercury (dissolved)	µg/l	0.07	EQS	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD					1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	2	6	8	3	3	<1	<1	<1	2	<1	1	4	<1	2	<1	4	2	4	2
Potassium (dissolved)	mg/l	No screening value																				
Selenium (dissolved)	µg/l	10	UK DWS	<1	7	3	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	1
Sodium (dissolved)	mg/l	200	UK DWS	46	595	347	24															
Vanadium (dissolved)	µg/l	20	EQS																			
Zinc (dissolved)	µg/l	10.9	EQS	4	1	20	4	33	10	4	2	4	<1	9	7	5	9	3	11	6	10	16
BTEX																						
Benzene	µg/l	1	UK DWS	<1	<1	<1	<1															
Toluene	µg/l	74	EQS	<2	2	13	<2															
Ethylbenzene	µg/l	300	WHO DWS	<1	<1	<1	<1															
p & m-xylene	µg/l	30	EQS	<1	<1	<1	<1															
o-xylene	µg/l	30	EQS	<1	<1	<1	<1															
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		<1	<1	<1	<1															
TPH																						
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	<1	2	<1	<1															
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	<1	40	42	<1															
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	<5	59	104	<5															
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	<5	24	44	<5															
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	<5	6	10	<5															
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		<5	<5	<5	<5															
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		<5	<5	<5	<5															
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		<5	131	200	<5															
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	<1	<1	<1	<1															
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	<2	2	13	<2															
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	<5	283	295	<5															
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	<5	127	122	<5															
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	<5	33	178	<5															
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	<5	11	31	<5															
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	<10	<10	13	<10															
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		<10	456	652	<10															
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		<10	587	852	<10															

Sample Reference				TP KTA020	BH KTA003	BH KTA004	BH KTA005	BH KTA007	BH KTA008	BH KTA011	BH KTA012	BH KTA013	BH KTA014	BH KTA017	BH KTA018	BH KTA020	BH KTA021
Depth (m)				1.5	2	0.5	1	1.2	0.2	1.2	1.2	1.2	0.2	0.5	1.5	0.5	0.3
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				25/02/2021	44319	25/02/2021	44319	19/03/2021	18/03/2021	11/03/2021	08/03/2021	25/03/2021	18/03/2021	17/03/2021	08/03/2021	26/03/2021	08/03/2021
	Units	GAC	Source														
General Inorganics																	
pH (w)	pH	>6.5 x <9.5	UK DWS	7.6	7.33	5.56	5.9	6.24	4.98	6.94	6.68	6.37	5.69	7.7	6.35	6.13	7.81
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	134	176	50	66	21	33	39	63	26	65	176	55	20	111
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value															
Hardness Total	mg/l Ca CO3	No screening value															
Total Suspended Solids (w)	mg/l	No screening value															
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS														
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value															
Chloride (w)	mg/l	250	UK DWS	2.58	8.86	12.49	10	9.16	8.85	7.4	7.03	3.16	5.86	7	12.29	22.41	1.4
Nitrite (w)	mg/l	0.5	UK DWS														
Nitrate (w)	mg/l	50	UK DWS														
Sulphate (w)	mg/l	250	UK DWS	4	<1.00	39.35	8	<1.00	15.19	22.56	11.1	7.11	23.04	<1	53.79	36.41	<1.00
Sulphide (w)	mg/l	No screening value															
DOC (w)	mg/l	No screening value															
PAHs																	
Naphthalene	µg/l	130	EQS														
Acenaphthylene	µg/l	0.01	LOD														
Acenaphthene	µg/l	0.01	LOD														
Fluorene	µg/l	0.01	LOD														
Phenanthrene	µg/l	0.01	LOD														
Anthracene	µg/l	0.1	EQS														
Fluoranthene	µg/l	0.01	LOD														
Pyrene	µg/l	0.01	LOD														
Benzo(a)anthracene	µg/l	0.01	LOD														
Chrysene	µg/l	0.01	LOD														
Benzo(b)fluoranthene*	µg/l	No screening value															
Benzo(k)fluoranthene*	µg/l	No screening value															
Benzo(a)pyrene	µg/l	0.01	LOD														
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value															
Dibenz(a,h)anthracene	µg/l	0.01	LOD														
Benzo(ghi)perylene*	µg/l	No screening value															
Total PAH (sum of 16)	µg/l	0.1	UK DWS														
Total PAH (sum of 4*)	µg/l	0.1	UK DWS														
Metals																	
Arsenic (dissolved)	µg/l	10	UK DWS	<1	<1	1	<1	3	6	<1	<1	1	3	<1	<1	<1	<1
Boron (dissolved)	µg/l	1000	UK DWS														
Cadmium (dissolved)	µg/l	0.45	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value															
Copper (dissolved)	µg/l	1	EQS	4	<1	13	3	7	8	3	1	6	10	<1	24	7	<1
Chromium (dissolved)	µg/l	50	UK DWS	<1	<1	1	<1	8	6	<1	<1	2	1	1	<1	1	<1
Chromium (hexavalent) (w)	mg/l	3.4	EQS														
Chromium (trivalent) (w)	mg/l	No screening value															
Lead (dissolved)	µg/l	10	UK DWS	<1	<1	12	<1	3	19	3	<1	9	17	<1	8	7	<1
Manganese (dissolved)	µg/l	50	UK DWS														
Magnesium (dissolved)	mg/l	No screening value															
Mercury (dissolved)	µg/l	0.07	EQS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	<1	<1	4	<1	4	5	<1	<1	2	3	<1	4	2	<1
Potassium (dissolved)	mg/l	No screening value															
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
Sodium (dissolved)	mg/l	200	UK DWS														
Vanadium (dissolved)	µg/l	20	EQS														
Zinc (dissolved)	µg/l	10.9	EQS	3	1	13	2	11	15	3	4	12	16	<1	8	14	3
BTEX																	
Benzene	µg/l	1	UK DWS														
Toluene	µg/l	74	EQS														
Ethylbenzene	µg/l	300	WHO DWS														
p & m-xylene	µg/l	30	EQS														
o-xylene	µg/l	30	EQS														
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value															
TPH																	
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS														
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS														
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS														
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS														
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS														
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value															
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value															
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value															
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS														
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS														
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS														
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS														
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS														
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS														
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS														
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value															
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value															

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D4.3 - KTA WQS Evaluation

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D4.3 - KTA WQS Evaluation
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000022

Rev	Suit. Code	Suitability		Purpose of Issue		
P02	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	10/12/21	10/12/21	13/12/21	14/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Location	Sample Type	Depth	DWS Evaluation	EQS Evaluation	Applicable WQS	Progress to Tier 2 Assessment?
BH KTA015	GW	6	Principal Aquifer	770m north of River Eden	DWS	Yes
	Leachate	0.6	Principal Aquifer			
BH KTA018	GW	10	Principal Aquifer	250m North of River Eden	DWS	Yes
	Leachate	0.2	Principal Aquifer			
BH KTA021	GW	3.5	Principal Aquifer	300m NE of River Eden	DWS	Yes
	Leachate	0.3	Principal Aquifer			
BH KTA022	GW	5.5	Principal Aquifer	375m NE River Eden	DWS	Yes
TP KTA002	Leachate	0.2	Principal Aquifer	455m south Trout Beck	DWS	Yes
TP KTA003	Leachate	2	Principal Aquifer	623m south Trout Beck	DWS	Yes
TP KTA004	Leachate	1.1	Principal Aquifer	633m N River Eden	DWS	Yes
TP KTA006	Leachate	1.2	Principal Aquifer	637m south Trout Beck	DWS	Yes
TP KTA008	Leachate	0.1	Principal Aquifer	685m south Trout Beck	DWS	Yes
TP KTA009	Leachate	3.2	Principal Aquifer	>1km north of River Eden	DWS	Yes
TP KTA011	Leachate	0.2	Principal Aquifer	>1km north of River Eden	DWS	Yes
TP KTA012	Leachate	0.4	Principal Aquifer	>1km north of River Eden	DWS	Yes
TP KTA013	Leachate	0.2	Principal Aquifer	764m north River Eden	DWS	Yes
TP KTA014	Leachate	0.2	Principal Aquifer	700m N River Eden	DWS	Yes
TP KTA016	Leachate	0.5	Principal Aquifer	546m N River Eden	DWS	Yes
TP KTA017	Leachate	0.5	Principal Aquifer	462m north River Eden	DWS	Yes
TP KTA018	Leachate	1.1	Principal Aquifer	230m north River Eden	DWS	Yes
TP KTA019	Leachate	1.2	Principal Aquifer	270m north River Eden	DWS	Yes
TP KTA020	Leachate	1.5	Principal Aquifer	781m north River Eden	DWS	Yes
BH KTA003	Leachate	2	Principal Aquifer	417m south Trout Beck	DWS	Yes
BH KTA004	Leachate	0.5	Principal Aquifer	560m south Trout Beck	DWS	Yes
BH KTA005	Leachate	1	Principal Aquifer	577m south Trout Beck	DWS	Yes
BH KTA007	Leachate	1.2	Principal Aquifer	830m north River Eden	DWS	Yes
BH KTA008	Leachate	0.2	Principal Aquifer	890m north of River Eden	DWS	Yes
BH KTA011	Leachate	1.2	Principal Aquifer	>1km north of River Eden	DWS	Yes
BH KTA012	Leachate	1.2	Principal Aquifer	>1km north of River Eden	DWS	Yes
BH KTA013	Leachate	1.2	Principal Aquifer	>1km north of River Eden	DWS	Yes
BH KTA014	Leachate	0.2	Principal Aquifer	900m north River Eden	DWS	Yes
BH KTA017	Leachate	1	Principal Aquifer	440m north River Eden	DWS	Yes
BH KTA020	Leachate	0.5	Principal Aquifer	230m north River Eden	DWS	Yes

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D4.4 - KTA T2 DWS CWRA

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D4.4 - KTA T2 DWS CWRA
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000023

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination				
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Reference				BH KTA015	BH KTA018	BH KTA021	BH KTA022	TP KTA002	TP KTA003	TP KTA004	TP KTA006	TP KTA008	TP KTA009	TP KTA011	TP KTA012	TP KTA013	TP KTA014	TP KTA015	TP KTA016	TP KTA017	TP KTA018
Depth (m)				6.00	10.00	3.50	5.50	0.2	2	1.1	1.2	0.1	3.2	0.2	0.4	0.2	0.2	0.6	0.5	0.5	0.2
Sample Type				Groundwater	Groundwater	Groundwater	Groundwater	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				09/06/2021	09/06/2021	09/06/2021	09/06/2021	44243	44243	44250	17/03/2021	19/02/2021	18/03/2021	25/02/2021	20/04/2021	44319	44319	44320	44324	44324	44326
	Units	GAC	Source																		
General Inorganics																					
pH (w)	pH	>6.5 x <9.5	UK DWS	7.48	12.64	7.57	7.29	6.62	7.5	6.9	6.86	7.6	6.58	7.02	5.22	7.27	5.22	6.09	5.87	5.6	7.59
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS					160	46	64	74	158	42	108	20	33	36	31	16	19	28
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		687	2890	1854	788														
Hardness Total	mg/l Ca CO3	No screening value																			
Total Suspended Solids (w)	mg/l	No screening value																			
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS	0.78	0.17	0.05	0.57														
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																			
Chloride (w)	mg/l	250	UK DWS	51	77	113	11	10.34	3.69	7	12.46	1.93	9.8	<1.00	4.96	13.3	12.11	<1.00	14.3	7	5.02
Nitrite (w)	mg/l	0.5	UK DWS																		
Nitrate (w)	mg/l	50	UK DWS																		
Sulphate (w)	mg/l	250	UK DWS	61	336	265	16	16.22	6.79	11	10.33	<1.00	20.49	3.46	2.66	<1.00	<1.00	5.24	57.75	27	16.61
Sulphide (w)	mg/l	No screening value		5.5	998	671.3	10.2														
DOC (w)	mg/l	No screening value																			
PAHs																					
Naphthalene	µg/l	No screening value		<0.01	0.06	0.11	<0.01														
Acenaphthylene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Acenaphthene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01														
Fluorene	µg/l	No screening value		<0.01	<0.02	0.05	<0.01														
Phenanthrene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Anthracene	µg/l	0.1	EQS	<0.01	<0.01	0.01	<0.01														
Fluoranthene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Pyrene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Benzo(a)anthracene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Chrysene	µg/l	0.01	LOD	0.01	<0.01	<0.01	<0.01														
Benzo(b)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Benzo(k)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Benzo(a)pyrene	µg/l	0.01	UK DWS	<0.01	<0.01	<0.01	<0.01														
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Dibenz(a,h)anthracene	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Benzo(ghi)perylene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01														
Total PAH (sum of 16)	µg/l	0.1	UK DWS	0.01	0.06	0.17	<0.01														
Total PAH (sum of 4*)	µg/l	0.1	UK DWS	0	0	0	0														
Metals																					
Arsenic (dissolved)	µg/l	10	UK DWS	<1	3	3	1	5	<1	<1	<1	2	<1	7	<1	1	<1	<1	<1	<1	<1
Boron (dissolved)	µg/l	1000	UK DWS																		
Cadmium (dissolved)	µg/l	5	UK DWS	<0.2	<0.2	<0.2	<0.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value		82	23	168	150														
Copper (dissolved)	µg/l	2000	UK DWS	28	44	24	26	22	<1	2	4	34	<1	10	11	9	9	<1	3	4	12
Chromium (dissolved)	µg/l	50	UK DWS					2	<1	<1	<1	<1	<1	<1	1	<1	1	<1	<1	<1	2
Chromium (hexavalent) (w)	mg/l	50	UK DWS	<0.01	0.03	<0.01	0.01														
Chromium (trivalent) (w)	mg/l	50	UK DWS	<0.01	<0.01	<0.01	<0.01														
Lead (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	33	<5	<1	<1	3	<1	9	15	4	9	<1	16	8	12
Manganese (dissolved)	µg/l	50	UK DWS																		
Magnesium (dissolved)	mg/l	No screening value																			
Mercury (dissolved)	µg/l	1	UK DWS	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value						1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	2	6	8	3	3	<1	<1	<1	2	<1	1	4	<1	2	<1	4	2	4
Potassium (dissolved)	mg/l	No screening value																			
Selenium (dissolved)	µg/l	10	UK DWS	<1	7	3	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1
Sodium (dissolved)	µg/l	200	UK DWS	46	595	347	24														
Vanadium (dissolved)	µg/l	No screening value																			
Zinc (dissolved)	µg/l	No screening value		4	1	20	4	33	10	4	2	4	<1	9	7	5	9	3	11	6	10
BTEX																					
Benzene	µg/l	1	UK DWS	<1	<1	<1	<1														
Toluene	µg/l	700	WHO DWS	<2	2	13	<2														
Ethylbenzene	µg/l	300	WHO DWS	<1	<1	<1	<1														
p & m-xylene	µg/l	500	WHO DWS	<1	<1	<1	<1														
o-xylene	µg/l	500	WHO DWS	<1	<1	<1	<1														
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		<1	<1	<1	<1														
TPH																					
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	<1	2	<1	<1														
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	<1	40	42	<1														
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	<5	59	104	<5														
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	<5	24	44	<5														
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	<5	6	10	<5														
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		<5	<5	<5	<5														
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		<5	<5	<5	<5														
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		<5	131	200	<5														
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	<1	<1	<1	<1														
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	<2	2	13	<2														
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	<5	283	295	<5														
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	<5	127	122	<5														
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	<5	33	178	<5														
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	<5	11	31	<5														
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	<10	<10	13	<10														
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		<10	456	652	<10														
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		<10	587	852	<10														

Sample Reference				TP KTA019	TP KTA020	BH KTA003	BH KTA004	BH KTA005	BH KTA007	BH KTA008	BH KTA011	BH KTA012	BH KTA013	BH KTA014	BH KTA017	BH KTA018	BH KTA020	BH KTA021
Depth (m)				1.2	1.5	2	0.5	1	1.2	0.2	1.2	1.2	1.2	0.2	0.5	1.5	0.5	0.3
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				44326	25/02/2021	44319	25/02/2021	44319	19/03/2021	18/03/2021	11/03/2021	08/03/2021	25/03/2021	18/03/2021	17/03/2021	08/03/2021	26/03/2021	08/03/2021
	Units	GAC	Source															
General Inorganics																		
pH (w)	pH	>6.5 x <9.5	UK DWS	6.1	7.6	7.33	5.56	5.9	6.24	4.98	6.94	6.68	6.37	5.69	7.7	6.35	6.13	7.81
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	31	134	176	50	66	21	33	39	63	26	65	176	55	20	111
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																
Hardness Total	mg/l Ca CO3	No screening value																
Total Suspended Solids (w)	mg/l	No screening value																
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS															
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																
Chloride (w)	mg/l	250	UK DWS	42	2.58	8.86	12.49	10	9.16	8.85	7.4	7.03	3.16	5.86	7	12.29	22.41	1.4
Nitrite (w)	mg/l	0.5	UK DWS															
Nitrate (w)	mg/l	50	UK DWS															
Sulphate (w)	mg/l	250	UK DWS	<1	4	<1.00	39.35	8	<1.00	15.19	22.56	11.1	7.11	23.04	<1	53.79	36.41	<1.00
Sulphide (w)	mg/l	No screening value																
DOC (w)	mg/l	No screening value																
PAHs																		
Naphthalene	µg/l	No screening value																
Acenaphthylene	µg/l	No screening value																
Acenaphthene	µg/l	0.01	LOD															
Fluorene	µg/l	No screening value																
Phenanthrene	µg/l	No screening value																
Anthracene	µg/l	0.1	EQS															
Fluoranthene	µg/l	No screening value																
Pyrene	µg/l	No screening value																
Benzo(a)anthracene	µg/l	No screening value																
Chrysene	µg/l	0.01	LOD															
Benzo(b)fluoranthene*	µg/l	No screening value																
Benzo(k)fluoranthene*	µg/l	No screening value																
Benzo(a)pyrene	µg/l	0.01	UK DWS															
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																
Dibenz(a,h)anthracene	µg/l	No screening value																
Benzo(ghi)perylene*	µg/l	No screening value																
Total PAH (sum of 16)	µg/l	0.1	UK DWS															
Total PAH (sum of 4*)	µg/l	0.1	UK DWS															
Metals																		
Arsenic (dissolved)	µg/l	10	UK DWS	2	<1	<1	1	<1	3	6	<1	<1	1	3	<1	<1	<1	<1
Boron (dissolved)	µg/l	1000	UK DWS															
Cadmium (dissolved)	µg/l	5	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value																
Copper (dissolved)	µg/l	2000	UK DWS	10	4	<1	13	3	7	8	3	1	6	10	<1	24	7	<1
Chromium (dissolved)	µg/l	50	UK DWS	3	<1	<1	1	<1	8	6	<1	<1	2	1	1	<1	1	<1
Chromium (hexavalent) (w)	mg/l	50	UK DWS															
Chromium (trivalent) (w)	mg/l	50	UK DWS															
Lead (dissolved)	µg/l	10	UK DWS	11	<1	<1	12	<1	3	19	3	<1	9	17	<1	8	7	<1
Manganese (dissolved)	µg/l	50	UK DWS															
Magnesium (dissolved)	mg/l	No screening value																
Mercury (dissolved)	µg/l	1	UK DWS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	2	<1	<1	4	<1	4	5	<1	<1	2	3	<1	4	2	<1
Potassium (dissolved)	mg/l	No screening value																
Selenium (dissolved)	µg/l	10	UK DWS	1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
Sodium (dissolved)	µg/l	200	UK DWS															
Vanadium (dissolved)	µg/l	No screening value																
Zinc (dissolved)	µg/l	No screening value		16	3	1	13	2	11	15	3	4	12	16	<1	8	14	3
BTEX																		
Benzene	µg/l	1	UK DWS															
Toluene	µg/l	700	WHO DWS															
Ethylbenzene	µg/l	300	WHO DWS															
p & m-xylene	µg/l	500	WHO DWS															
o-xylene	µg/l	500	WHO DWS															
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																
TPH																		
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS															
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS															
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS															
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS															
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS															
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS															
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS															
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS															
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS															
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS															
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS															
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS															
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																

D.5 AB Human Health and Controlled Waters Screeners

A66 Appleby to Brough (Warcop)
Exceedances Summary

Strata Selected:	MG
%SOM	1.76
SOM (from TOC)	1.688966
SOM (from FOC)	

Contaminant	Number of samples Tested	Min	Max	Location of Max	Strate of Max	1% SOM						2.5% SOM						6% SOM					
						Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)
Metals																							
Lead	98	2	132	BH AB027	TOPSOIL	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Mercury	98	0.23	2.72	TP AB036	MG	2	2	0	0	0	0	2	2	0	0	0	0	2	2	0	0	0	0
Inorganics																							
pH	98	4.69	8.86	BH AB006	SAND	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
VOCs																							
1,2-Dibromoethane	5	0	0	#N/A	#N/A	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Chlorotoluene	5	0	0	#N/A	#N/A	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

GE A6.1
A66 - Appleby to Brough (Warcop)
Soil Sample Screener
1% POS - Park

Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit / POS (Park) 1% SOM
Metals												
Arsenic	98	0	LOD	23.00	BH AB019	0.50	CLAY	0	mg/kg	C4SL	0	170.00
Boron, Water Soluble	98	0	LOD	1.10	TP AB027	0.20	SAND	0	mg/kg	S4UL	0	46000
Cadmium	98	0	LOD	1.00	TP AB003	2.40	MG	0	mg/kg	C4SL	0	880.00
Chromium	98	0	3.00	149.00	BH AB041	0.50	CLAY	0	mg/kg	S4UL	0	33000.00
Chromium, Hexavalent	96	0	LOD	LOD	BH AB008	0.30	MG	0	mg/kg	C4SL	0	250.00
Copper	98	0	LOD	64.00	BH AB027	0.20	TOPSOIL	0	mg/kg	S4UL	0	44000.00
Lead	98	0	2.00	132.00	BH AB027	0.20	TOPSOIL	0	mg/kg	C4SL	0	1300.00
Mercury	98	0	LOD	2.72	TP AB036	0.20	MG	0	mg/kg	S4UL	0	30.00
Nickel	98	0	LOD	78.00	BH AB041	0.50	CLAY	0	mg/kg	S4UL	0	3400.00
Selenium	98	0	LOD	2.00	BH AB019	0.50	CLAY	0	mg/kg	S4UL	0	1800.00
Zinc	98	0	LOD	133.00	BH AB027	0.20	TOPSOIL	0	mg/kg	S4UL	0	170000.00
Inorganics												
pH	98	62	4.69	8.86	BH AB006	0.50	SAND	0	pH Units	-	0	7.0-9.0
Cyanide, Free	41	0	LOD	2.00	TP AB027	0.20	SAND	0	0	AtkinsAtrisk	0	34.00
Soil Organic Matter (SOM)	97	0	LOD	13.00	BH AB043	1.20	SAND	0	%	-	0	
Organic matter (TOC)	97	0	LOD	7.53	BH AB043	1.20	SAND	0	0	-	0	
Sulphide	98	0	LOD	380.00	TP AB040	1.00	SAND	0	0	-	0	
Asbestos in Soil	38	0			BH AB001	0.30	TOPSOIL	0	0	-	0	Detected
Asbestos Quantification	38	0	#NUM!	LOD	BH AB001	0.30	TOPSOIL	0	0	-	0	Detected
Phenols												
Total Phenols	41	0	LOD	2.60	TP AB052	0.50	MG	0	mg/kg	S4UL	0	760.00
Petroleum Hydrocarbons												
Aliphatic C5-C6	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00
Aliphatic C6-C8	98	0	LOD	0.01	TP AB001	0.20	MG	0	mg/kg	S4UL	0	150000.00
Aliphatic C8-C10	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00
Aliphatic C10-C12	98	0	LOD	1.00	TP AB036	0.70	SAND	0	mg/kg	S4UL	0	21000.00
Aliphatic C12-C16	98	0	LOD	2.00	TP AB036	0.70	SAND	0	mg/kg	S4UL	0	25000.00
Aliphatic C16-C21	98	0	LOD	5.00	BH AB043	1.20	SAND	0	mg/kg	S4UL	0	450000.00
Aliphatic C21-C35	98	0	LOD	132.00	TP AB005	0.20	TOPSOIL	0	mg/kg	S4UL	0	450000.00
Aliphatic C5-C35	98	0	LOD	135.00	TP AB005	0.20	TOPSOIL	0	mg/kg	-	0	
Aromatic C5-C7	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00
Aromatic C7-C8	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	87000.00
Aromatic C8-C10	98	0	LOD	1.00	TP AB028	0.80	SAND	0	mg/kg	S4UL	0	7200.00
Aromatic C10-C12	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	9200.00
Aromatic C12-C16	98	0	LOD	1.00	TP AB003	0.20	MG	0	mg/kg	S4UL	0	10000.00
Aromatic C16-C21	98	0	LOD	10.00	TP AB003	0.20	MG	0	mg/kg	S4UL	0	7600.00
Aromatic C21-C35	98	0	LOD	41.00	BH AB043	1.20	SAND	0	mg/kg	S4UL	0	7800.00
Aromatic C5-C35	98	0	LOD	45.00	TP AB003	0.20	MG	0	mg/kg	-	0	
TPH Ali/Aro Total	98	0	LOD	159.00	TP AB005	0.20	TOPSOIL	0	mg/kg	-	0	
BTEX												
Benzene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00
Toluene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	87000.00
Ethylbenzene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
O-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
M-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
P-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
Methyl Tert-Butyl Ether (MTBE)	98	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00
PAHs												
Naphthalene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00
Acenaphthylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	29000.00
Acenaphthene	98	0	LOD	0.04	TP AB003	0.20	MG	0	mg/kg	S4UL	0	29000.00
Fluorene	98	0	LOD	0.04	TP AB003	0.20	MG	0	mg/kg	S4UL	0	20000.00
Phenanthrene	98	0	LOD	0.41	TP AB003	0.20	MG	0	mg/kg	S4UL	0	6200.00
Anthracene	98	0	LOD	0.07	TP AB003	0.20	MG	0	mg/kg	S4UL	0	150000.00
Fluoranthene	98	0	LOD	0.92	TP AB003	0.20	MG	0	mg/kg	S4UL	0	6300.00
Pyrene	98	0	LOD	0.73	TP AB003	0.20	MG	0	mg/kg	S4UL	0	15000.00
Benzo(a)anthracene	98	0	LOD	0.40	TP AB003	0.20	MG	0	mg/kg	S4UL	0	49.00
Chrysene	98	0	LOD	0.41	TP AB003	0.20	MG	0	mg/kg	S4UL	0	93.00
Benzo(b)fluoranthene	98	0	LOD	0.52	TP AB003	0.20	MG	0	mg/kg	S4UL	0	13.00
Benzo(k)fluoranthene	98	0	LOD	0.21	TP AB003	0.20	MG	0	mg/kg	S4UL	0	370.00
Benzo(a)pyrene	98	0	LOD	0.43	TP AB003	0.20	MG	0	mg/kg	C4SL	0	21.00
Indeno(1,2,3-c,d)pyrene	98	0	LOD	0.30	TP AB003	0.20	MG	0	mg/kg	S4UL	0	150.00
Dibenzo(a,h)anthracene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1.10
Benzo(g,h,i)perylene	98	0	LOD	0.25	TP AB003	0.20	MG	0	mg/kg	S4UL	0	1400.00
PAH - USEPA 16, Total	98	0	LOD	4.73	TP AB003	0.20	MG	0	mg/kg	-	0	
VOCs												
1,1,1,2-Tetrachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	1500.00
1,1,1-Trichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	57000.00
1,1,2,2-Tetrachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	1800.00
1,1,2-Trichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	766.00
1,1-Dichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	11200.00
1,1-Dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	1950.00
1,1-Dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
1,2,3-Trichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	770.00
1,2,4-Trichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	1700.00
1,2,4-Trimethylbenzene	5	0	LOD	0.01	TP AB028	0.50	MG	0	mg/kg	AtkinsAtrisk	0	225.00
1,2-Dibromo-3-chloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
1,2-Dibromoethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
1,2-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	24000.00
1,2-Dichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	21.00
1,2-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	79.60
1,3,5-Trimethylbenzene	5	0	LOD	0.00	BH AB028	0.20	TOPSOIL	0	mg/kg	-	0	
1,3-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	390.00
1,3-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
1,4-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	36000.00
2,2-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	
2-Chlorotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
4-Chlorotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Benzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	90
Bromobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	986.00
Bromodichloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	33.9
Bromomethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Chlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	1300.00
Chloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	82400.00
Chloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	73.80
Cis-1,2-dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	389.00
Cis-1,3-dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Dibromochloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	231.00
Dibromomethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Ethylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	17000.00
Hexachlorobutadiene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	48.00
Isopropylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	14800.00
n-Propylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	27500.00
o-Xylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	17000.00
p & m-Xylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	17000.00
p-Isopropyltoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
sec-Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Styrene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	5640.00
tert-Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Tetrachloroethene (Tetrachloroethylene, perchloroethylene PERC)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	CLAIRE C4SL	0	1400.00
Tetrachloromethane (Carbon tetrachloride)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	190.00
Toluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	87000.00
Trans-1,2-dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	918.00
Trans-1,3-dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Tribromomethane (Bromoform)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	2910.00
Trichloroethene (trichloroethylene)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	CLAIRE C4SL	0	41.00
Trichlorofluoromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Trichloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	2600.00
Vinyl Chloride (chloroethene , chloroethylene)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	CLAIRE C4SL	0	18.00
SVOCs												
2,4,5-Trichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
2,4,6-Trichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
2,4-Dichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
2,4-Dimethylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	8740.00
2,4-Dinitrotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	973.00
2,6-Dinitrotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	489.00
2-Chloronaphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	659.00
2-Chlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	1100.00
2-Methylnaphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
2-Methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	48700.00
2-Nitrophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
4-Chloro-3-methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
4-Methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	48100.00
Acenaphthene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	29000.00
Acenaphthylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	29000.00
Anthracene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	150000.00
Benzo(a)anthracene	5	0	LOD	0.31	TP AB030	0.20	MG	0	mg/kg	S4UL	0	49.00
Benzo(a)pyrene	5	0	LOD	0.35	TP AB030	0.20	MG	0	mg/kg	S4UL	0	11.00
Benzo(b)fluoranthene	5	0	LOD	0.51	TP AB030	0.20	MG	0	mg/kg	S4UL	0	13.00
Benzo(ghi)perylene	5	0	LOD	0.24	TP AB030	0.20	MG	0	mg/kg	S4UL	0	1400.00
Benzo(k)fluoranthene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	370.00
Bis(2-chloroethoxy)methane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Bis(2-chloroethyl)ether	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Bis(2-chloroisopropyl)ether	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Butyl benzyl phthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	257000.00
Carbazole	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Chrysene	5	0	LOD	0.32	TP AB030	0.20	MG	0	mg/kg	S4UL	0	93.00
Dibenz(a,h)anthracene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	1.10
Dibenzofuran	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Dibutyl phthalate (Di-n-butyl phthalate)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	2620.00
Diethyl phthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	85800.00
Dimethylphthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Fluoranthene	5	0	LOD	0.62	TP AB030	0.20	MG	0	mg/kg	S4UL	0	6300.00
Fluorene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	20000.00
Hexachlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	30.00
Hexachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	AtkinsAtrisk	0	115.00
Indeno(1,2,3-cd)pyrene	5	0	LOD	0.23	TP AB030	0.20	MG	0	mg/kg	S4UL	0	150.00
Isophorone	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Naphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	1200.00
Nitrobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	-	0	
Phenanthrene	5	0	LOD	0.19	TP AB030	0.20	MG	0	mg/kg	S4UL	0	6200.00
Phenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg	S4UL	0	760.00
Pyrene	5	0	LOD	0.52	TP AB030	0.20	MG	0	mg/kg	S4UL	0	15000.00

Sample ID	BH AB001	BH AB001	BH AB002	BH AB002	BH AB005	BH AB005	BH AB008	BH AB008	BH AB006	BH AB003	BH AB003
Lab No.											
Depth	0.30	0.50	0.30	0.50	0.50	1.50	0.30	1.50	0.50	0.30	1.20
Strata	TOPSOIL	SAND	SAND	SAND	SAND	SAND	MG	SAND	SAND	TOPSOIL	SAND
Sample Type											
Date	09-Mar-21	09-Mar-21	11-Mar-21	11-Mar-21	11-Mar-21	11-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	12-Mar-21	12-Mar-21
Metals											
Arsenic	2.00	4.00	3.00	2.00	3.00	3.00	2.00	<1	4.00	4.00	2.00
Boron, Water Soluble	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.50	<0.5	<0.5
Chromium	14.00	10.00	9.00	7.00	9.00	9.00	6.00	10.00	18.00	8.00	9.00
Chromium, Hexavalent	<1	<1	<1	<1	<1	<1			<1	<1	<1
Copper	6.00	4.00	3.00	2.00	2.00	2.00	3.00	3.00	10.00	3.00	2.00
Lead	6.00	19.00	6.00	4.00	6.00	5.00	13.00	7.00	9.00	18.00	5.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	10.00	5.00	6.00	4.00	5.00	6.00	2.00	7.00	15.00	3.00	6.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	19.00	22.00	12.00	9.00	12.00	14.00	15.00	9.00	45.00	14.00	10.00
Inorganics											
pH	7.12	6.73	7.14	7.05	7.29	7.70	6.35	6.55	8.86	7.04	7.06
Cyanide, Free											
Soil Organic Matter (SOM)	1.20	0.20	0.40	0.40	0.30	0.20	2.90		0.10	1.90	<0.1
Organic matter (TOC)	0.71	0.12	0.24	0.22	0.17	0.09	1.70		0.07	1.10	<0.03
Sulphide	<5	<5	<5	<5	46.00	36.00	10.00	<5	<5	<5	<5
Asbestos in Soil											
Asbestos Quantification											
Phenols											
Total Phenols											
Petroleum Hydrocarbons											
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	2.00	<1	1.00	1.00	5.00	3.00	10.00	<1	<1	12.00	<1
Aliphatic C5-C35	2.00	<1	1.00	1.00	5.00	3.00	10.00	<1	<1	12.00	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C21-C35	3.00	<1	2.00	1.00	7.00	3.00	6.00	<1	<1	10.00	<1
Aromatic C5-C35	3.00	<1	2.00	1.00	7.00	3.00	6.00	<1	<1	10.00	<1
TPH Ali/Aro Total	6.00	<1	3.00	2.00	12.00	7.00	16.00	<1	<1	22.00	<1
BTEX											
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs											
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	0.10	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	0.21	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Sample ID	BH AB010	TP AB009	TP AB009	TP AB010	TP AB010	TP AB003	TP AB003	TP AB003	TP AB017	TP AB017	TP AB017
Lab No.	#REF!										
Depth	0.50	0.15	0.50	0.60	1.40	0.20	0.60	2.40	0.20	0.50	1.50
Strata	SAND	MG	MG	MG	CLAY	MG	MG	MG	TOPSOIL	SAND	SAND
Sample Type											
Date	15-Mar-21	12-Mar-21	12-Mar-21	12-Mar-21	12-Mar-21	10-Mar-21	10-Mar-21	10-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21
Metals											
Arsenic	<1	3.00	6.00	<1	<1	5.00	4.00	3.00	2.00	<1	<1
Boron, Water Soluble	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	0.70	<0.5	<0.5	0.60	0.50	1.00	<0.5	<0.5	<0.5
Chromium	4.00	8.00	5.00	12.00	11.00	12.00	13.00	7.00	5.00	7.00	7.00
Chromium, Hexavalent	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	2.00	9.00	2.00	3.00	4.00	7.00	5.00	6.00	4.00	<1	2.00
Lead	3.00	20.00	3.00	5.00	5.00	27.00	13.00	9.00	29.00	3.00	3.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	3.00	4.00	4.00	8.00	8.00	7.00	7.00	13.00	2.00	4.00	4.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	8.00	31.00	7.00	10.00	13.00	37.00	26.00	27.00	13.00	6.00	7.00
Inorganics											
pH	6.25	7.66	7.53	7.52	8.12	6.39	6.47	6.56	5.80	6.32	6.81
Cyanide, Free		<1				<1	<1	<1			
Soil Organic Matter (SOM)	0.40	2.30	0.20	0.30	0.40	2.30	0.70	0.10	1.20	0.20	0.10
Organic matter (TOC)	0.24	1.31	0.13	0.18	0.26	1.32	0.39	0.08	0.68	0.09	0.08
Sulphide	14.00	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Asbestos in Soil	NAD	NAD				NAD	NAD				
Asbestos Quantification	N/A	N/A				N/A	N/A				
Phenols											
Total Phenols		<0.2				<0.2	<0.2	<0.2			
Petroleum Hydrocarbons											
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	<1	21.00	<1	2.00	5.00	30.00	2.00	<1	7.00	<1	<1
Aliphatic C5-C35	<1	22.00	<1	2.00	5.00	30.00	2.00	<1	7.00	<1	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1
Aromatic C16-C21	<1	2.00	<1	<1	<1	10.00	<1	<1	<1	<1	<1
Aromatic C21-C35	<1	18.00	<1	5.00	20.00	33.00	<1	<1	7.00	<1	<1
Aromatic C5-C35	<1	21.00	<1	5.00	20.00	45.00	<1	<1	7.00	<1	<1
TPH Ali/Aro Total	<1	43.00	<1	7.00	24.00	74.00	2.00	<1	14.00	<1	<1
BTEX											
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs											
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	0.04	<0.03	<0.03	<0.03	0.41	<0.03	<0.03	0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	0.10	<0.08	<0.08	<0.08	0.92	<0.08	<0.08	0.11	<0.08	<0.08
Pyrene	<0.07	<0.07	<0.07	<0.07	<0.07	0.73	<0.07	<0.07	0.09	<0.07	<0.07
Benzo(a)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	0.40	<0.04	<0.04	0.06	<0.04	<0.04
Chrysene	<0.06	<0.06	<0.06	<0.06	<0.06	0.41	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	0.52	<0.05	<0.05	0.08	<0.05	<0.05
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	0.21	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	0.43	<0.04	<0.04	0.07	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	0.30	<0.03	<0.03	0.05	<0.03	<0.03
Dibenzo(a,h)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	<0.05	<0.05	<0.05	<0.05	<0.05	0.25	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	<0.08	0.14	<0.08	<0.08	<0.08	4.73	<0.08	<0.08	0.49	<0.08	<0.08

Sample ID	TP AB001	TP AB001	TP AB013	TP AB013	TP AB016	TP AB016	TP AB005	TP AB005	TP AB007	TP AB007	TP AB011
Lab No.											
Depth	0.20	0.70	0.60	3.20	0.20	0.50	0.20	0.50	0.20	0.50	0.60
Strata	MG	MG	SAND	SAND	MG	MG	TOPSOIL	SAND	MG	SAND	MG
Sample Type											
Date	10-Mar-21	10-Mar-21	16-Mar-21	16-Mar-21	16-Mar-21	16-Mar-21			18-Mar-21	18-Mar-21	15-Mar-21
Metals											
Arsenic	2.00	4.00	<1	<1	5.00	3.00	3.00	<1	4.00	1.00	<1
Boron, Water Soluble	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	9.00	10.00	4.00	7.00	13.00	12.00	8.00	11.00	11.00	11.00	8.00
Chromium, Hexavalent	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	3.00	6.00	<1	3.00	5.00	5.00	19.00	4.00	4.00	3.00	2.00
Lead	5.00	23.00	2.00	3.00	18.00	13.00	24.00	11.00	24.00	10.00	6.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	4.00	6.00	5.00	5.00	6.00	5.00	4.00	5.00	4.00	4.00	5.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	13.00	30.00	9.00	9.00	25.00	17.00	44.00	17.00	23.00	16.00	9.00
Inorganics											
pH	7.31	7.32	6.37	5.67	5.97	6.04	7.43	7.33	6.12	6.13	7.39
Cyanide, Free	<1	<1			<1	<1	<1	<1			<1
Soil Organic Matter (SOM)	0.30	2.10	0.20	<0.1	2.00	0.90	2.90	1.30	1.90	1.00	0.60
Organic matter (TOC)	0.15	1.21	0.11	0.04	1.16	0.53	1.68	0.75	1.14	0.60	0.32
Sulphide	<5	<5	14.00	15.00	23.00	21.00	<5	<5	<5	<5	21.00
Asbestos in Soil	NAD	NAD			NAD	NAD	NAD	NAD			NAD
Asbestos Quantification	N/A	N/A			N/A	N/A	N/A	N/A			N/A
Phenols											
Total Phenols	<0.2	<0.2			<0.2	<0.2	<0.2	<0.2			<0.2
Petroleum Hydrocarbons											
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	<1	<1	<1	<1	<1	<1	3.00	<1	<1	<1	<1
Aliphatic C21-C35	7.00	<1	2.00	1.00	6.00	5.00	132.00	2.00	6.00	2.00	1.00
Aliphatic C5-C35	7.00	<1	2.00	1.00	6.00	5.00	135.00	2.00	6.00	2.00	1.00
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	<1	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1
Aromatic C16-C21	2.00	<1	<1	<1	<1	<1	3.00	<1	<1	<1	<1
Aromatic C21-C35	13.00	<1	<1	<1	5.00	2.00	21.00	1.00	14.00	1.00	2.00
Aromatic C5-C35	15.00	<1	<1	<1	5.00	2.00	24.00	1.00	14.00	1.00	2.00
TPH Ali/Aro Total	22.00	<1	2.00	1.00	11.00	7.00	159.00	4.00	20.00	3.00	3.00
BTEX											
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs											
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	0.12	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	0.33	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	0.27	<0.07	<0.07	<0.07	0.09	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	0.15	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	0.19	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	0.20	<0.05	<0.05	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	0.17	<0.04	<0.04	<0.04	0.08	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	0.09	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	<0.04	<0.04	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(g,h,i)perylene	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	1.60	<0.08	<0.08	<0.08	0.30	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

GE A6.1
A66 - Appleby to Brough (Warcop)
Soil Sample Screener
1% POS - Park

Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units
Metals									
Arsenic	98	0	LOD	23.00	BH AB019	0.50	CLAY	0	mg/kg
Boron, Water Soluble	98	0	LOD	1.10	TP AB027	0.20	SAND	0	mg/kg
Cadmium	98	0	LOD	1.00	TP AB003	2.40	MG	0	mg/kg
Chromium	98	0	3.00	149.00	BH AB041	0.50	CLAY	0	mg/kg
Chromium, Hexavalent	96	0	LOD	LOD	BH AB008	0.30	MG	0	mg/kg
Copper	98	0	LOD	64.00	BH AB027	0.20	TOPSOIL	0	mg/kg
Lead	98	0	2.00	132.00	BH AB027	0.20	TOPSOIL	0	mg/kg
Mercury	98	0	LOD	2.72	TP AB036	0.20	MG	0	mg/kg
Nickel	98	0	LOD	78.00	BH AB041	0.50	CLAY	0	mg/kg
Selenium	98	0	LOD	2.00	BH AB019	0.50	CLAY	0	mg/kg
Zinc	98	0	LOD	133.00	BH AB027	0.20	TOPSOIL	0	mg/kg
Inorganics									
pH	98	62	4.69	8.86	BH AB006	0.50	SAND	0	pH Units
Cyanide, Free	41	0	LOD	2.00	TP AB027	0.20	SAND	0	0
Soil Organic Matter (SOM)	97	0	LOD	13.00	BH AB043	1.20	SAND	0	%
Organic matter (TOC)	97	0	LOD	7.53	BH AB043	1.20	SAND	0	0
Sulphide	98	0	LOD	380.00	TP AB040	1.00	SAND	0	0
Asbestos in Soil	38	0			BH AB001	0.30	TOPSOIL	0	0
Asbestos Quantification	38	0	#NUM!	LOD	BH AB001	0.30	TOPSOIL	0	0
Phenols									
Total Phenols	41	0	LOD	2.60	TP AB052	0.50	MG	0	mg/kg
Petroleum Hydrocarbons									
Aliphatic C5-C6	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Aliphatic C6-C8	98	0	LOD	0.01	TP AB001	0.20	MG	0	mg/kg
Aliphatic C8-C10	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Aliphatic C10-C12	98	0	LOD	1.00	TP AB036	0.70	SAND	0	mg/kg
Aliphatic C12-C16	98	0	LOD	2.00	TP AB036	0.70	SAND	0	mg/kg
Aliphatic C16-C21	98	0	LOD	5.00	BH AB043	1.20	SAND	0	mg/kg
Aliphatic C21-C35	98	0	LOD	132.00	TP AB005	0.20	TOPSOIL	0	mg/kg
Aliphatic C5-C35	98	0	LOD	135.00	TP AB005	0.20	TOPSOIL	0	mg/kg
Aromatic C5-C7	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Aromatic C7-C8	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Aromatic C8-C10	98	0	LOD	1.00	TP AB028	0.80	SAND	0	mg/kg
Aromatic C10-C12	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Aromatic C12-C16	98	0	LOD	1.00	TP AB003	0.20	MG	0	mg/kg
Aromatic C16-C21	98	0	LOD	10.00	TP AB003	0.20	MG	0	mg/kg
Aromatic C21-C35	98	0	LOD	41.00	BH AB043	1.20	SAND	0	mg/kg
Aromatic C5-C35	98	0	LOD	45.00	TP AB003	0.20	MG	0	mg/kg
TPH Ali/Aro Total	98	0	LOD	159.00	TP AB005	0.20	TOPSOIL	0	mg/kg
BTEX									
Benzene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Toluene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Ethylbenzene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
O-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
M-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
P-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Methyl Tert-Butyl Ether (MTBE)	98	0	LOD	LOD	0	0.00	0	0	mg/kg
PAHs									
Naphthalene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Acenaphthylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Acenaphthene	98	0	LOD	0.04	TP AB003	0.20	MG	0	mg/kg
Fluorene	98	0	LOD	0.04	TP AB003	0.20	MG	0	mg/kg
Phenanthrene	98	0	LOD	0.41	TP AB003	0.20	MG	0	mg/kg
Anthracene	98	0	LOD	0.07	TP AB003	0.20	MG	0	mg/kg
Fluoranthene	98	0	LOD	0.92	TP AB003	0.20	MG	0	mg/kg
Pyrene	98	0	LOD	0.73	TP AB003	0.20	MG	0	mg/kg
Benzo(a)anthracene	98	0	LOD	0.40	TP AB003	0.20	MG	0	mg/kg
Chrysene	98	0	LOD	0.41	TP AB003	0.20	MG	0	mg/kg
Benzo(b)fluoranthene	98	0	LOD	0.52	TP AB003	0.20	MG	0	mg/kg
Benzo(k)fluoranthene	98	0	LOD	0.21	TP AB003	0.20	MG	0	mg/kg
Benzo(a)pyrene	98	0	LOD	0.43	TP AB003	0.20	MG	0	mg/kg
Indeno(1,2,3-c,d)pyrene	98	0	LOD	0.30	TP AB003	0.20	MG	0	mg/kg
Dibenzo(a,h)anthracene	98	0	LOD	LOD	0	0.00	0	0	mg/kg
Benzo(g,h,i)perylene	98	0	LOD	0.25	TP AB003	0.20	MG	0	mg/kg
PAH - USEPA 16, Total	98	0	LOD	4.73	TP AB003	0.20	MG	0	mg/kg
VOCs									
1,1,1,2-Tetrachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,1,1-Trichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,1,2,2-Tetrachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,1,2-Trichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,1-Dichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,1-Dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,1-Dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,2,3-Trichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,2,4-Trichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,2,4-Trimethylbenzene	5	0	LOD	0.01	TP AB028	0.50	MG	0	mg/kg
1,2-Dibromo-3-chloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,2-Dibromoethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,2-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,2-Dichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,2-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,3,5-Trimethylbenzene	5	0	LOD	0.00	BH AB028	0.20	TOPSOIL	0	mg/kg
1,3-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,3-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
1,4-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2,2-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2-Chlorotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
4-Chlorotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Benzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Bromobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Bromodichloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Bromomethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Chlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Chloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Chloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Cis-1,2-dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Cis-1,3-dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Dibromochloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Dibromomethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Ethylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Hexachlorobutadiene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Isopropylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
n-Propylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
o-Xylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
p & m-Xylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
p-Isopropyltoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
sec-Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Styrene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
tert-Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Tetrachloroethene (Tetrachloroethylene, perchloroethylene PERC)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Tetrachloromethane (Carbon tetrachloride)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Toluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Trans-1,2-dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Trans-1,3-dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Tribromomethane (Bromoform)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Trichloroethene (trichloroethylene)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Trichlorofluoromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Trichloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Vinyl Chloride (chloroethene , chloroethylene)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
SVOCs									
2,4,5-Trichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2,4,6-Trichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2,4-Dichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2,4-Dimethylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2,4-Dinitrotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2,6-Dinitrotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2-Chloronaphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2-Chlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2-Methylnaphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2-Methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
2-Nitrophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
4-Chloro-3-methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
4-Methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Acenaphthene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Acenaphthylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Anthracene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Benzo(a)anthracene	5	0	LOD	0.31	TP AB030	0.20	MG	0	mg/kg
Benzo(a)pyrene	5	0	LOD	0.35	TP AB030	0.20	MG	0	mg/kg
Benzo(b)fluoranthene	5	0	LOD	0.51	TP AB030	0.20	MG	0	mg/kg
Benzo(ghi)perylene	5	0	LOD	0.24	TP AB030	0.20	MG	0	mg/kg
Benzo(k)fluoranthene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Bis(2-chloroethoxy)methane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Bis(2-chloroethyl)ether	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Bis(2-chloroisopropyl)ether	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Butyl benzyl phthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Carbazole	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Chrysene	5	0	LOD	0.32	TP AB030	0.20	MG	0	mg/kg
Dibenz(a,h)anthracene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Dibenzofuran	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Dibutyl phthalate (Di-n-butyl phthalate)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Diethyl phthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Dimethylphthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Fluoranthene	5	0	LOD	0.62	TP AB030	0.20	MG	0	mg/kg
Fluorene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Hexachlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Hexachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Indeno(1,2,3-cd)pyrene	5	0	LOD	0.23	TP AB030	0.20	MG	0	mg/kg
Isophorone	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Naphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Nitrobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Phenanthrene	5	0	LOD	0.19	TP AB030	0.20	MG	0	mg/kg
Phenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg
Pyrene	5	0	LOD	0.52	TP AB030	0.20	MG	0	mg/kg

Sample ID	TP AB011	TP AB012	TP AB012	BHAB009	TP AB006	TP AB006	TP AB006	BH AB018	BH AB018	TP AB019	TP AB020	TP AB022	TP AB022
Lab No.													
Depth	1.50	0.15	0.60	0.50	0.20	0.50	2.20	0.30	0.50	0.50	0.50	0.20	1.20
Strata	SAND	MG	MG	SAND	MG	MG	MG	TOPSOIL	CLAY	SAND	SAND	SAND	SAND
Sample Type													
Date	15-Mar-21	15-Mar-21	15-Mar-21	18-Mar-21	11-Mar-21	11-Mar-21	11-Mar-21	22-Mar-21	22-Mar-21	23-Mar-21	24-Mar-21	25-Mar-21	25-Mar-21
Metals													
Arsenic	<1	3.00	2.00	<1	3.00	3.00	4.00	15.00	13.00	<1	<1	3.00	<1
Boron, Water Soluble	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.80	0.50	<0.5	<0.5	<0.5	<0.5
Chromium	7.00	6.00	3.00	9.00	9.00	12.00	17.00	19.00	25.00	3.00	6.00	12.00	9.00
Chromium, Hexavalent	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	6.00	6.00	2.00	4.00	16.00	6.00	10.00	10.00	6.00	1.00	3.00	12.00	4.00
Lead	4.00	15.00	7.00	5.00	20.00	6.00	9.00	34.00	14.00	2.00	6.00	24.00	5.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	5.00	2.00	2.00	6.00	5.00	9.00	15.00	13.00	15.00	3.00	2.00	7.00	8.00
Selenium	<1	<1	<1	<1	<1	<1	<1	1.00	1.00	<1	<1	<1	<1
Zinc	9.00	21.00	8.00	11.00	37.00	14.00	25.00	49.00	47.00	7.00	8.00	35.00	10.00
Inorganics													
pH	7.46	6.65	6.61	4.69	6.93	7.26	7.74	4.72	5.18	6.59	6.06	6.95	6.99
Cyanide, Free	<1	<1	<1	<1	<1			<1			<1	<1	
Soil Organic Matter (SOM)	0.20	1.90	0.80	<0.1	2.30	0.20	<0.1	3.60	1.30	0.20	0.60	2.70	0.20
Organic matter (TOC)	0.11	1.08	0.48	0.08	1.34	0.09	0.05	2.10	0.78	0.14	0.34	1.60	0.09
Sulphide	<5	<5	<5	15.00	<5	<5	<5	18.00	9.00	<5	<5	40.00	21.00
Asbestos in Soil	NAD	NAD	NAD	NAD	NAD			NAD				NAD	
Asbestos Quantification	N/A	N/A	N/A	N/A	N/A			N/A				N/A	
Phenols													
Total Phenols	<0.2	<0.2	<0.2	<0.2	<0.2			<0.2			<0.2	<0.2	
Petroleum Hydrocarbons													
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	<1	9.00	2.00	<1	11.00	<1	<1	4.00	<1	<1	<1	13.00	<1
Aliphatic C5-C35	<1	9.00	2.00	<1	11.00	<1	<1	4.00	<1	<1	<1	13.00	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	<1	2.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C21-C35	<1	14.00	2.00	<1	12.00	<1	<1	3.00	<1	<1	<1	6.00	<1
Aromatic C5-C35	<1	16.00	2.00	<1	12.00	<1	<1	3.00	<1	<1	<1	6.00	<1
TPH Ali/Aro Total	<1	25.00	4.00	<1	23.00	<1	<1	7.00	<1	<1	<1	19.00	<1
BTEX													
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs													
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	0.09	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	0.27	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	<0.07	0.22	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	<0.04	0.15	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	<0.06	0.18	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	<0.05	0.25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	0.19	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	<0.03	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(g,h,i)perylene	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	<0.08	0.64	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Sample ID	TP AB027	BH AB027	BH AB027	BH AB028	TP AB038	TP AB038	BH AB019	TP AB028	TP AB028	TP AB030	TP AB030	TP AB033	TP AB033
Lab No.													
Depth	0.20	0.20	0.50	0.20	0.20	1.20	0.50	0.50	0.80	0.20	0.50	0.20	0.60
Strata	SAND	TOPSOIL	SAND	TOPSOIL	MG	SAND	CLAY	MG	SAND	MG	CLAY	MG	SAND
Sample Type													
Date	25-Mar-21	23-Mar-21	23-Mar-21	25-Mar-21	26-Mar-21	26-Mar-21	23-Mar-21	25-Mar-21	25-Mar-21	25-Mar-21	25-Mar-21	25-Mar-21	25-Mar-21
Metals													
Arsenic	3.00	16.00	5.00	3.00	4.00	2.00	23.00	9.00	<1	7.00	6.00	4.00	<1
Boron, Water Soluble	1.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	0.90	<0.5	<0.5	<0.5	<0.5	0.80	0.70	<0.5	0.60	0.50	<0.5	<0.5
Chromium	10.00	23.00	15.00	10.00	9.00	13.00	30.00	17.00	20.00	16.00	14.00	12.00	8.00
Chromium, Hexavalent	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	11.00	64.00	8.00	4.00	14.00	6.00	10.00	4.00	4.00	9.00	4.00	9.00	3.00
Lead	19.00	132.00	28.00	10.00	23.00	10.00	25.00	12.00	11.00	27.00	12.00	22.00	6.00
Mercury	<0.17	1.48	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	3.00	31.00	9.00	5.00	4.00	10.00	16.00	10.00	12.00	8.00	7.00	4.00	7.00
Selenium	<1	<1	<1	<1	<1	<1	2.00	1.00	<1	1.00	2.00	<1	<1
Zinc	29.00	133.00	40.00	20.00	42.00	20.00	47.00	23.00	13.00	31.00	12.00	28.00	15.00
Inorganics													
pH	6.50	6.03	5.93	6.18	7.17	6.90	6.24	6.49	6.39	7.12	4.81	6.53	6.94
Cyanide, Free	2.00			<1	<1		<1			<1		<1	
Soil Organic Matter (SOM)	3.80	3.10	<0.1	1.00	4.20	0.20	3.30	1.10	2.40	6.30	0.80	3.20	0.20
Organic matter (TOC)	2.24	1.78	0.05	0.53	2.44	0.11	1.90	0.64	1.43	3.63	0.45	1.89	0.12
Sulphide	30.00	13.00	10.00	<5	21.00	24.00	38.00	10.00	17.00	33.00	<5	<5	<5
Asbestos in Soil				NAD	NAD		NAD	NAD	NAD	NAD		NAD	
Asbestos Quantification				N/A	N/A		N/A	N/A	N/A	N/A		N/A	
Phenols													
Total Phenols	<0.2			<0.2	<0.2		<0.2	<0.2		<0.2		1.90	
Petroleum Hydrocarbons													
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.00	<1
Aliphatic C21-C35	18.00	8.00	2.00	9.00	<1	<1	5.00	2.00	5.00	10.00	<1	14.00	<1
Aliphatic C5-C35	19.00	8.00	2.00	9.00	<1	<1	5.00	2.00	5.00	10.00	<1	16.00	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	1.00	1.00	<1	1.00	<1
Aromatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	2.00	<1	<1	<1	<1	<1	<1	<1	<1	4.00	<1	4.00	<1
Aromatic C21-C35	12.00	9.00	2.00	6.00	<1	<1	2.00	2.00	5.00	15.00	<1	11.00	<1
Aromatic C5-C35	14.00	9.00	2.00	6.00	<1	<1	2.00	2.00	7.00	20.00	<1	15.00	<1
TPH Ali/Aro Total	33.00	16.00	5.00	15.00	<1	<1	7.00	5.00	12.00	30.00	<1	32.00	<1
BTEX													
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs													
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	0.04	<0.03	0.08	<0.03	<0.03	<0.03	<0.03	<0.03	0.18	<0.03	0.05	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02
Fluoranthene	0.11	0.13	<0.08	0.16	<0.08	<0.08	<0.08	<0.08	<0.08	0.54	<0.08	0.18	<0.08
Pyrene	0.10	0.11	<0.07	0.12	<0.07	<0.07	<0.07	<0.07	<0.07	0.45	<0.07	0.14	<0.07
Benzo(a)anthracene	0.06	0.08	<0.04	0.08	<0.04	<0.04	<0.04	<0.04	<0.04	0.24	<0.04	0.09	<0.04
Chrysene	0.08	0.09	<0.06	0.09	<0.06	<0.06	<0.06	<0.06	<0.06	0.35	<0.06	0.11	<0.06
Benzo(b)fluoranthene	0.08	0.13	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	0.31	<0.05	0.16	<0.05
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.12	<0.07	<0.07	<0.07
Benzo(a)pyrene	0.10	0.10	<0.04	0.09	<0.04	<0.04	<0.04	<0.04	<0.04	0.29	<0.04	0.12	<0.04
Indeno(1,2,3-c,d)pyrene	0.08	0.08	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	<0.03	0.16	<0.03	0.07	<0.03
Dibenzo(a,h)anthracene	<0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	0.07	<0.05
PAH - USEPA 16, Total	0.67	0.76	<0.08	0.77	<0.08	<0.08	<0.08	<0.08	<0.08	2.82	<0.08	0.99	<0.08
VOCs													
1,1,1,2-Tetrachloroethane				<0.001				<0.001	<0.001	<0.001	<0.001		
1,1,1-Trichloroethane				<0.001				<0.001	<0.001	<0.001	<0.001		
1,1,2,2-Tetrachloroethane				<0.001				<0.001	<0.001	<0.001	<0.001		
1,1,2-Trichloroethane				<0.001				<0.001	<0.001	<0.001	<0.001		
1,1-Dichloroethane				<0.001				<0.001	<0.001	<0.001	<0.001		
1,1-Dichloroethene				<0.001				<0.001	<0.001	<0.001	<0.001		
1,1-Dichloropropene				<0.001				<0.001	<0.001	<0.001	<0.001		
1,2,3-Trichlorobenzene				<0.003				<0.003	<0.003	<0.003	<0.003		
1,2,4-Trichlorobenzene				<0.003				<0.003	<0.003	<0.003	<0.003		
1,2,4-Trimethylbenzene				0.01				0.01	<0.001	<0.001	<0.001		
1,2-Dibromo-3-chloropropane				<0.002				<0.002	<0.002	<0.002	<0.002		
1,2-Dibromoethane				<0.001				<0.001	<0.001	<0.001	<0.001		
1,2-Dichlorobenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
1,2-Dichloroethane				<0.002				<0.002	<0.002	<0.002	<0.002		
1,2-Dichloropropane				<0.001				<0.001	<0.001	<0.001	<0.001		
1,3,5-Trimethylbenzene				0.00				0.00	<0.001	<0.001	<0.001		
1,3-Dichlorobenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
1,3-Dichloropropane				<0.001				<0.001	<0.001	<0.001	<0.001		
1,4-Dichlorobenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
2,2-Dichloropropane				<0.001				<0.001	<0.001	<0.001	<0.001		
2-Chlorotoluene				<0.001				<0.001	<0.001	<0.001	<0.001		
4-Chlorotoluene				<0.001				<0.001	<0.001	<0.001	<0.001		
Benzene				<0.001				<0.001	<0.001	<0.001	<0.001		
Bromobenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
Bromodichloromethane				<0.01				<0.01	<0.01	<0.01	<0.01		
Bromomethane				<0.001				<0.001	<0.001	<0.001	<0.001		
Butylbenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
Chlorobenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
Chloroethane				<0.001				<0.001	<0.001	<0.001	<0.001		
Chloromethane				<0.01				<0.01	<0.01	<0.01	<0.01		
Cis-1,2-dichloroethene				<0.001				<0.001	<0.001	<0.001	<0.001		
Cis-1,3-dichloropropene				<0.001				<0.001	<0.001	<0.001	<0.001		
Dibromochloromethane				<0.003				<0.003	<0.003	<0.003	<0.003		
Dibromomethane				<0.001				<0.001	<0.001	<0.001	<0.001		
Ethylbenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
Hexachlorobutadiene				<0.001				<0.001	<0.001	<0.001	<0.001		
Isopropylbenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
n-Propylbenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
o-Xylene				<0.001				<0.001	<0.001	<0.001	<0.001		
p & m-Xylene				<0.001				<0.001	<0.001	<0.001	<0.001		
p-Isopropyltoluene				<0.001				<0.001	<0.001	<0.001	<0.001		
sec-Butylbenzene				<0.001				<0.001	<0.001	<0.001	<0.001		
Styrene				<0.001				<0.001	<0.001	<0.001	<0.001		
tert-Butylbenzene				<0.002				<0.002	<0.002	<0.002	<0.002		
Tetrachloroethene (Tetrachloroethylene, perchloroethylene PERC)				<0.001				<0.001	<0.001	<0.001	<0.001		
Tetrachloromethane (Carbon tetrachloride)				<0.001				<0.001	<0.001	<0.001	<0.001		
Toluene				<0.001				<0.001	<0.001	<0.001	<0.001		
Trans-1,2-dichloroethene				<0.001				<0.001	<0.001	<0.001	<0.001		
Trans-1,3-dichloropropene				<0.001				<0.001	<0.001	<0.001	<0.001		
Tribromomethane (Bromoform)				<0.001				<0.001	<0.001	<0.001	<0.001		
Trichloroethene (trichloroethylene)				<0.001				<0.001	<0.001	<0.001	<0.001		
Trichlorofluoromethane				<0.001				<0.001	<0.001	<0.001	<0.001		
Trichloromethane				<0.001				<0.001	<0.001	<0.001	<0.001		
Vinyl Chloride (chloroethene , chloroethylene)				<0.001				<0.001	<0.001	<0.001	<0.001		
SVOCs													
2,4,5-Trichlorophenol				<0.1				<0.1	<0.1	<0.1	<0.1		
2,4,6-Trichlorophenol				<0.1				<0.1	<0.1	<0.1	<0.1		
2,4-Dichlorophenol				<0.1				<0.1	<0.1	<0.1	<0.1		
2,4-Dimethylphenol				<0.1				<0.1	<0.1	<0.1	<0.1		
2,4-Dinitrotoluene				<0.1				<0.1	<0.1	<0.1	<0.1		
2,6-Dinitrotoluene				<0.1				<0.1	<0.1	<0.1	<0.1		
2-Chloronaphthalene				<0.1				<0.1	<0.1	<0.1	<0.1		
2-Chlorophenol				<0.1				<0.1	<0.1	<0.1	<0.1		
2-Methylnaphthalene				<0.1				<0.1	<0.1	<0.1	<0.1		
2-Methylphenol				<0.1				<0.1	<0.1	<0.1	<0.1		
2-Nitrophenol				<0.1				<0.1	<0.1	<0.1	<0.1		
4-Chloro-3-methylphenol				<0.1				<0.1	<0.1	<0.1	<0.1		
4-Methylphenol				<0.1				<0.1	<0.1	<0.1	<0.1		
Acenaphthene				<0.1				<0.1	<0.1	<0.1	<0.1		
Acenaphthylene				<0.1				<0.1	<0.1	<0.1	<0.1		
Anthracene				<0.1				<0.1	<0.1	<0.1	<0.1		
Benzo(a)anthracene				<0.1				<0.1	<0.1	0.31	<0.1		
Benzo(a)pyrene				<0.1				<0.1	<0.1	0.35	<0.1		
Benzo(b)fluoranthene				0.11				0.13	<0.1	0.51	<0.1		
Benzo(ghi)perylene				<0.1				<0.1	<0.1	0.24	<0.1		
Benzo(k)fluoranthene				<0.1				<0.1	<0.1	<0.1	<0.1		
Bis(2-chloroethoxy)methane				<0.1				<0.1	<0.1	<0.1	<0.1		
Bis(2-chloroethyl)ether				<0.1				<0.1	<0.1	<0.1	<0.1		
Bis(2-chloroisopropyl)ether				<0.1				<0.1	<0.1	<0.1	<0.1		
Butyl benzyl phthalate				<0.1				<0.1	<0.1	<0.1	<0.1		
Carbazole				<0.1				<0.1	<0.1	<0.1	<0.1		
Chrysene				<0.1				<0.1	<0.1	0.32	<0.1		
Dibenz(a,h)anthracene				<0.1				<0.1	<0.1	<0.1	<0.1		
Dibenzofuran				<0.1				<0.1	<0.1	<0.1	<0.1		
Dibutyl phthalate (Di-n-butyl phthalate)				<0.1				<0.1	<0.1	<0.1	<0.1		
Diethyl phthalate				<0.1				<0.1	<0.1	<0.1	<0.1		
Dimethylphthalate				<0.1				<0.1	<0.1	<0.1	<0.1		
Fluoranthene				<0.1				0.14	<0.1	0.62	<0.1		
Fluorene				<0.1				<0.1	<0.1	<0.1	<0.1		
Hexachlorobenzene				<0.1				<0.1	<0.1	<0.1	<0.1		
Hexachloroethane				<0.1				<0.1	<0.1	<0.1	<0.1		
Indeno(1,2,3-cd)pyrene				<0.1				<0.1	<0.1	0.23	<0.1		
Isophorone				<0.1				<0.1	<0.1	<0.1	<0.1		
Naphthalene				<0.1				<0.1	<0.1	<0.1	<0.1		
Nitrobenzene				<0.1				<0.1	<0.1	<0.1	<0.1		
Phenanthrene				<0.1				<0.1	<0.1	0.19	<0.1		
Phenol				<0.1				<0.1	<0.1	<0.1	<0.1		
Pyrene				<0.1				<0.1	<0.1	0.52	<0.1		

Sample ID	BH AB020	BH AB041	TP AB034	TP AB034	TP AB035	TP AB035	TP AB015	TP AB015	WS AB007	BH AB042	TP AB041	TP AB041
Lab No.												
Depth	0.50	0.50	0.30	0.60	0.60	1.40	0.20	0.50	1.00	0.50	0.60	1.50
Strata	SAND	CLAY	TOPSOIL	SAND	SAND	CLAY	SAND	SAND	SAND	SAND	SAND	SAND
Sample Type												
Date	25-Mar-21	26-Mar-21	30-Mar-21	30-Mar-21	30-Mar-21	30-Mar-21	24-Mar-21	24-Mar-21	31-Mar-21	30-Mar-21	01-Apr-21	01-Apr-21
Metals												
Arsenic	3.00	7.00	3.00	1.00	2.00	4.00	2.00	3.00	1.00	1.00	<1	<1
Boron, Water Soluble	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	0.70	1.00	<0.5	<0.5	<0.5	0.70	<0.5	<0.5
Chromium	12.00	149.00	6.00	6.00	11.00	18.00	11.00	11.00	6.00	16.00	5.00	6.00
Chromium, Hexavalent	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	7.00	36.00	8.00	2.00	8.00	11.00	3.00	4.00	3.00	10.00	2.00	4.00
Lead	19.00	24.00	16.00	3.00	13.00	12.00	17.00	8.00	6.00	9.00	3.00	5.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	7.00	78.00	4.00	4.00	11.00	18.00	4.00	5.00	5.00	13.00	4.00	6.00
Selenium	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1
Zinc	23.00	60.00	22.00	8.00	34.00	34.00	15.00	11.00	10.00	26.00	9.00	12.00
Inorganics												
pH	7.19	6.39	7.05	6.86	7.58	6.99	5.64	7.21	6.16	7.47	6.75	6.93
Cyanide, Free			<1						<1			
Soil Organic Matter (SOM)	1.40	1.30	2.40	0.20	0.90	0.20	3.50	0.80	0.20	0.50	0.20	<0.1
Organic matter (TOC)	0.82	0.75	1.40	0.12	0.53	0.12	1.99	0.46	0.12	0.31	0.11	<0.03
Sulphide	<5	17.00	<5	10.00	<5	<5	12.00	12.00	<5	6.00	14.00	8.00
Asbestos in Soil			NAD				NAD					
Asbestos Quantification			N/A				N/A					
Phenols												
Total Phenols			<0.2						<0.2			
Petroleum Hydrocarbons												
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C16-C21	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C21-C35	12.00	10.00	14.00	1.00	3.00	<1	8.00	2.00	2.00	1.00	<1	<1
Aliphatic C5-C35	13.00	10.00	14.00	1.00	3.00	<1	8.00	2.00	2.00	1.00	<1	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C16-C21	2.00	<1	4.00	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C21-C35	7.00	1.00	14.00	<1	2.00	<1	6.00	<1	<1	1.00	<1	<1
Aromatic C5-C35	9.00	1.00	19.00	<1	2.00	<1	6.00	<1	<1	1.00	<1	<1
TPH Ali/Aro Total	22.00	11.00	33.00	1.00	6.00	<1	15.00	2.00	2.00	2.00	<1	<1
BTEX												
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs												
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	<0.03	0.11	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	<0.08	0.36	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	<0.07	<0.07	0.31	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	<0.04	<0.04	0.18	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	<0.06	<0.06	0.22	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	<0.05	<0.05	0.27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	<0.07	<0.07	0.13	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	0.22	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	<0.03	<0.03	0.18	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	<0.05	<0.05	0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	<0.08	<0.08	2.13	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

GE A6.1
A66 - Appleby to Brough (Warcop)
Soil Sample Screener
1% POS - Park

Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units																											
Lab No.																																				
Sample ID										BH AB044	BH AB044	BH AB014	BH AB014	TP AB039	TP AB039	TP AB040	TP AB040	BH AB045	BH AB045	TP AB052	TP AB052	TP AB052	TP AB014	TP AB014	TP AB018	TP AB018	TP AB042	TP AB042	BH AB011	BH AB011	BH AB043	BH AB043	TP AB036	TP AB036	TP AB037	TP AB037
Depth										0.20	0.50	0.20	0.50	0.50	1.20	0.20	1.00	0.20	0.50	0.50	1.20	1.90	0.20	0.60	0.20	1.50	0.20	0.70	0.20	0.50	0.10	1.20	0.20	0.70	0.20	1.50
Strata										SAND	SAND	TOPSOIL	CLAY	SAND	SAND	TOPSOIL	SAND	TOPSOIL	SAND	MG	MG	SAND	TOPSOIL	SAND	TOPSOIL	SAND	TOPSOIL	SAND	TOPSOIL	SAND	TOPSOIL	SAND	MG	SAND	SAND	SAND
Sample Type																																				
Date										30-Mar-21	30-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	01-Apr-21	01-Apr-21	01-Apr-21	06-Apr-21	06-Apr-21	06-Apr-21	06-Apr-21	01-Apr-21	01-Apr-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21	31-Mar-21
Metals																																				
Arsenic	98	0	LOD	23.00	BH AB019	0.50	CLAY	0	mg/kg	1.00	2.00	3.00	<1	<1	<1	5.00	<1	1.00	2.00	<1	6.00	<1	2.00	<1	2.00	2.00	2.00	<1	<1	<1	2.00	<1	3.00	2.00	<1	<1
Boron, Water Soluble	98	0	LOD	1.10	TP AB027	0.20	SAND	0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	98	0	LOD	1.00	TP AB003	2.40	MG	0	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.60	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	98	0	3.00	149.00	BH AB041	0.50	CLAY	0	mg/kg	11.00	16.00	14.00	12.00	6.00	8.00	9.00	13.00	12.00	19.00	30.00	13.00	12.00	5.00	6.00	7.00	9.00	6.00	5.00	4.00	10.00	19.00	18.00	3.00	8.00	5.00	8.00
Chromium, Hexavalent	96	0	LOD	LOD	BH AB008	0.30	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	98	0	LOD	64.00	BH AB027	0.20	TOPSOIL	0	mg/kg	8.00	11.00	6.00	6.00	5.00	2.00	3.00	4.00	13.00	12.00	8.00	5.00	5.00	2.00	2.00	5.00	4.00	4.00	2.00	2.00	2.00	9.00	10.00	4.00	2.00	4.00	2.00
Lead	98	0	2.00	132.00	BH AB027	0.20	TOPSOIL	0	mg/kg	23.00	9.00	19.00	7.00	7.00	3.00	14.00	6.00	28.00	11.00	11.00	6.00	5.00	7.00	5.00	20.00	5.00	13.00	5.00	7.00	6.00	23.00	16.00	3.00	5.00	14.00	4.00
Mercury	98	0	LOD	2.72	TP AB036	0.20	MG	0	mg/kg	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	0.23	0.76	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	2.72	<0.17	<0.17	<0.17
Nickel	98	0	LOD	78.00	BH AB041	0.50	CLAY	0	mg/kg	6.00	11.00	7.00	6.00	3.00	7.00	4.00	9.00	8.00	15.00	16.00	12.00	6.00	3.00	4.00	3.00	6.00	3.00	3.00	<1	8.00	12.00	12.00	3.00	6.00	3.00	6.00
Selenium	98	0	LOD	2.00	BH AB019	0.50	CLAY	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1	<1
Zinc	98	0	LOD	133.00	BH AB027	0.20	TOPSOIL	0	mg/kg	30.00	28.00	27.00	18.00	16.00	11.00	16.00	11.00	37.00	25.00	39.00	15.00	11.00	10.00	10.00	22.00	13.00	16.00	8.00	14.00	16.00	35.00	38.00	<5	14.00	17.00	10.00
Inorganics																																				
pH	98	62	4.69	8.86	BH AB006	0.50	SAND	0	pH Units	6.41	6.97	6.41	6.82	6.21	7.04	6.77	7.70	6.56	7.25	6.49	7.06	6.64	6.70	6.63	6.39	7.91	6.14	6.71	6.13	6.19	6.93	6.88	8.64	7.37	7.00	7.16
Cyanide, Free	41	0	LOD	2.00	TP AB027	0.20	SAND	0	0	<1		<1		<1		<1		<1		<1	<1		<1	<1	<1		<1						<1		<1	
Soil Organic Matter (SOM)	97	0	LOD	13.00	BH AB043	1.20	SAND	0	%	3.70	0.20	1.50	0.60	1.00	0.20	4.10	0.30	7.20	0.50	2.90	1.10	0.80	0.90	0.80	3.50	<0.1	1.60	0.40	0.70	0.50	6.30	13.00	1.60	<0.1	1.20	<0.1
Organic matter (TOC)	97	0	LOD	7.53	BH AB043	1.20	SAND	0	0	2.16	0.13	0.86	0.33	0.60	0.16	2.39	0.14	4.16	0.27	1.69	0.64	0.46	0.58	0.45	2.02	0.05	0.97	0.22	0.39	0.26	3.65	7.53	0.90	0.04	0.71	<0.03
Sulphide	98	0	LOD	380.00	TP AB040	1.00	SAND	0	0	<5	7.00	8.00	12.00	11.00	<5	<5	380.00	<5	<5	250.00	49.00	<5	<5	<5	<5	25.00	29.00	11.00	<5	<5	25.00	<5	10.00	15.00	<5	43.00
Asbestos in Soil	38	0			BH AB001	0.30	TOPSOIL	0	0	NAD		NAD				NAD		NAD		NAD	NAD		NAD		NAD		NAD						NAD		NAD	
Asbestos Quantification	38	0	#NUM!	LOD	BH AB001	0.30	TOPSOIL	0	0	N/A		N/A				N/A		N/A		N/A	N/A		N/A		N/A		N/A						N/A		N/A	
Phenols																																				
Total Phenols	41	0	LOD	2.60	TP AB052	0.50	MG	0	mg/kg	<0.2		<0.2		<0.2		<0.2		<0.2		2.60	1.50		<0.2	<0.2	<0.2		<0.2						<0.2		<0.2	
Petroleum Hydrocarbons																																				
Aliphatic C5-C6	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	98	0	LOD	0.01	TP AB001	0.20	MG	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aliphatic C10-C12	98	0	LOD	1.00	TP AB036	0.70	SAND	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1
Aliphatic C12-C16	98	0	LOD	2.00	TP AB036	0.70	SAND	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.00	<1	<1
Aliphatic C16-C21	98	0	LOD	5.00	BH AB043	1.20	SAND	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5.00	<1	<1	<1	<1
Aliphatic C21-C35	98	0	LOD	132.00	TP AB005	0.20	TOPSOIL	0	mg/kg	14.00	<1	4.00	<1	2.00	<1	9.00	<1	17.00	<1	5.00	7.00	1.00	4.00	4.00	15.00	<1	4.00	<1	4.00	<1	5.00	26.00	2.00	1.00	5.00	<1
Aliphatic C5-C35	98	0	LOD	135.00	TP AB005	0.20	TOPSOIL	0	mg/kg	14.00	<1	4.00	<1	2.00	<1	9.00	<1	17.00	<1	5.00	7.00	1.00	4.00	4.00	15.00	<1	4.00	<1	4.00	<1	5.00	31.00	2.00	4.00	5.00	<1
Aromatic C5-C7	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C8-C10	98	0	LOD	1.00	TP AB028	0.80	SAND	0	mg/kg	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C10-C12	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Aromatic C12-C16	98	0	LOD	1.00	TP AB003	0.20	MG	0	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1
Aromatic C16-C21	98	0	LOD	10.00	TP AB003	0.20	MG	0	mg/kg	1.00	<1	<1	<1	<1	<1	<1	<1	3.00	<1	<1	<1	<1	<1	<1	3.00	<1	<1	<1	<1	<1	2.00	2.00	<1	<1	2.00	<1
Aromatic C21-C35	98	0	LOD	41.00	BH AB043	1.20	SAND	0	mg/kg	14.00	<1	4.00	<1	1.00	<1	12.00	1.00	8.00	<1	3.00	3.00	1.00	2.00	2.00	14.00	<1	4.00	<1	4.00	<1	9.00	41.00	3.00	<1	6.00	<1
Aromatic C5-C35	98	0	LOD	45.00	TP AB003	0.20	MG	0	mg/kg	17.00	<1	4.00	<1	1.00	<1	12.00	1.00	11.00	<1	3.00	3.00	1.00	2.00	2.00	20.00	<1	4.00	<1	4.00	<1	12.00	43.00	3.00	1.00	8.00	<1
TPH Ali/Aro Total	98	0	LOD	159.00	TP AB005	0.20	TOPSOIL	0	mg/kg	31.00	<1	7.00	<1	3.00	<1	21.00	1.00	28.00	<1	8.00	10.00	3.00	6.00	6.00	35.00	<1	9.00	<1	7.00	<1	16.00	75.00	5.00	5.00	13.00	<1
BTEX																																				
Benzene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Tert-Butyl Ether (MTBE)	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																																				
Naphthalene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	98	0	LOD	0.04	TP AB003	0.20	MG	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	98	0	LOD	0.04	TP AB003	0.20	MG	0	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	98	0	LOD	0.41	TP AB003	0.20	MG	0	mg/kg	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.18	<0.03	0.06	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	98	0	LOD	0.07	TP AB003	0.20	MG	0	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	98	0	LOD	0.92	TP AB003	0.20	MG	0	mg/kg	<0.08	<0.08	0.11	<0.08	<0.08	<0.08	<0.08	<0.08	0.11	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.50	<0.08	0.14	<0.08	<0.08	<0.08	0.10	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	98	0	LOD	0.73	TP AB003	0.20	MG	0	mg/kg	<0.07	<0.07	0.09	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.40	<0.07	0.11	<0.07	<0.07	<0.07	0.09	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)anthracene	98	0	LOD	0.40	TP AB003	0.20	MG	0	mg/kg	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.23	<0.04	0.07	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	98	0	LOD	0.41	TP AB003	0.20	MG	0	mg/kg	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.28	<0.06	0.08	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Benzo(b)fluoranthene	98	0	LOD	0.52	TP AB003	0.20	MG	0	mg/kg	<0.05	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.33	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	98	0	LOD	0.21	TP AB003	0.20	MG	0	mg/kg	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.13	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	98	0	LOD	0.43	TP AB003	0.20	MG	0	mg/kg	<0.04	<0.04	0.07	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.27	<0.04	0.07	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(1,2,3-c,d)pyrene	98	0	LOD	0.30	TP AB003	0.20	MG	0	mg/kg	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.17	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibenzo(a,h)anthracene	98	0	LOD	LOD	0	0.00	0	0	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(g,h,i)perylene	98	0	LOD	0.25	TP AB003	0.20	MG	0	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH - USEPA 16, Total	98	0	LOD	4.73	TP AB003	0.20	MG	0	mg/kg	<0.08	<0.08	0.50	<0.08	<0.08	<0.08	<0.08	<0.08	0.22	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	2.69	<0.08	0.65	<0.08	<0.08	<0.08	0.22	<0.08	<0.08	<0.08	<0.08	<0.08
VOCs																																				
1,1,1,2-Tetrachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,1,1-Trichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,1,2,2-Tetrachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,1,2-Trichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,1-Dichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,1-Dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,1-Dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,2,3-Trichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,2,4-Trichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,2,4-Trimethylbenzene	5	0	LOD	0.01	TP AB028	0.50	MG	0	mg/kg																											
1,2-Dibromo-3-chloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,2-Dibromoethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,2-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,2-Dichloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,2-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,3,5-Trimethylbenzene	5	0	LOD	0.00	BH AB028	0.20	TOPSOIL	0	mg/kg																											
1,3-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,3-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
1,4-Dichlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2,2-Dichloropropane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2-Chlorotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
4-Chlorotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Benzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Bromobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Bromodichloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Bromomethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Chlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Chloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Chloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Cis-1,2-dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Cis-1,3-dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Dibromochloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Dibromomethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Ethylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Hexachlorobutadiene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Isopropylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
n-Propylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
o-Xylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
p & m-Xylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
p-Isopropyltoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
sec-Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Styrene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
tert-Butylbenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Tetrachloroethene (Tetrachloroethylene, perchloroethylene PERC)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Tetrachloromethane (Carbon tetrachloride)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Toluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Trans-1,2-dichloroethene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Trans-1,3-dichloropropene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Tribromomethane (Bromoform)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Trichloroethene (trichloroethylene)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Trichlorofluoromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Trichloromethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Vinyl Chloride (chloroethene , chloroethylene)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
SVOCs																																				
2,4,5-Trichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2,4,6-Trichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2,4-Dichlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2,4-Dimethylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2,4-Dinitrotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2,6-Dinitrotoluene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2-Chloronaphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2-Chlorophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2-Methylnaphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2-Methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
2-Nitrophenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
4-Chloro-3-methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
4-Methylphenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Acenaphthene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Acenaphthylene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Anthracene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Benzo(a)anthracene	5	0	LOD	0.31	TP AB030	0.20	MG	0	mg/kg																											
Benzo(a)pyrene	5	0	LOD	0.35	TP AB030	0.20	MG	0	mg/kg																											
Benzo(b)fluoranthene	5	0	LOD	0.51	TP AB030	0.20	MG	0	mg/kg																											
Benzo(ghi)perylene	5	0	LOD	0.24	TP AB030	0.20	MG	0	mg/kg																											
Benzo(k)fluoranthene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Bis(2-chloroethoxy)methane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Bis(2-chloroethyl)ether	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Bis(2-chloroisopropyl)ether	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Butyl benzyl phthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Carbazole	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Chrysene	5	0	LOD	0.32	TP AB030	0.20	MG	0	mg/kg																											
Dibenz(a,h)anthracene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Dibenzofuran	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Dibutyl phthalate (Di-n-butyl phthalate)	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Diethyl phthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Dimethylphthalate	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Fluoranthene	5	0	LOD	0.62	TP AB030	0.20	MG	0	mg/kg																											
Fluorene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Hexachlorobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Hexachloroethane	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Indeno(1,2,3-cd)pyrene	5	0	LOD	0.23	TP AB030	0.20	MG	0	mg/kg																											
Isophorone	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Naphthalene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Nitrobenzene	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Phenanthrene	5	0	LOD	0.19	TP AB030	0.20	MG	0	mg/kg																											
Phenol	5	0	LOD	LOD	BH AB001	0.30	TOPSOIL	0	mg/kg																											
Pyrene	5	0	LOD	0.52	TP AB030	0.20	MG	0	mg/kg																											

A66 Appleby to Brough (Warcop)
Exceedances Summary

Strata Selected:	MG
%SOM	1.50
SOM (from TOC)	1.474138
SOM (from FOC)	

Contaminant	Number of samples Tested	Min	Max	Location of Max	Strate of Max	1% SOM						2.5% SOM						6% SOM					
						Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)	Residential with HGP	Residential without HGP	Allotments	Commercial	POS (Residential)	POS (Parks)
Inorganics																							
pH	90	5.39	8.34	TP AB069	0	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
VOCs																							
1,2-Dibromoethane	3	0	0	#N/A	#N/A	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Chlorotoluene	3	0	0	#N/A	#N/A	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

GE A6.1
A66 Appleby to Brough (Warcop)
Soil Sample Screener
1% POS Park

Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	Saturation Limit / POS (Park) 1% SOM
Metals												
Arsenic	91	0	LOD	32.00	BH AB019A	0.10	TOPSOIL	0	mg/kg	C4SL	0	170.00
ron, Water Solu	91	0	LOD	1.40	BH AB046	0.20	TOPSOIL	0	mg/kg	S4UL	0	46000
Cadmium	91	0	LOD	1.20	TP AB057	1.50	0	0	mg/kg	C4SL	0	880.00
Chromium	91	0	LOD	38.00	BH AB019A	0.50	CLAY	0	mg/kg	S4UL	0	33000.00
omium, Hexava	91	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	250.00
Copper	91	0	LOD	52.00	BH AB030	0.50	SAND	0	mg/kg	S4UL	0	44000.00
Lead	91	0	LOD	41.00	TP AB057	0.20	0	0	mg/kg	C4SL	0	1300.00
Mercury	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	30.00
Nickel	91	0	LOD	63.00	BH AB030	0.50	SAND	0	mg/kg	S4UL	0	3400.00
Selenium	91	0	LOD	2.00	BH AB019A	0.50	CLAY	0	mg/kg	S4UL	0	1800.00
Zinc	91	0	LOD	84.00	TP AB055	0.20	TOPSOIL	0	mg/kg	S4UL	0	170000.00
Inorganics												
pH	90	60	5.39	8.34	TP AB069	1.50	0	0	pH Units	-	0	7.0-9.0
Cyanide, Free	33	0	LOD	LOD	BH AB040	0.50	SAND	0	mg/kg	AtkinsAtrisk	0	34.00
Organic Matter (	90	0	LOD	25.20	BH AB030	0.50	SAND	0	%	-	0	
ganic matter (T	91	0	LOD	14.60	BH AB030	0.50	SAND	0	%	-	0	
Aqueous Extra	78	0	LOD	100.00	BH AB019A	0.50	CLAY	0	mg/l	-	0	
Sulphide	90	0	LOD	310.00	BH AB012	0.50	CLAY	0	mg/kg	-	0	
Asbestos in Soi	31	0			BH AB026	0.50	SAND	0	-	-	0	Detected
estos Quantifica	31	0			BH AB026	0.50	SAND	0	-	-	0	Detected
Phenols												
Total Phenols	33	0	LOD	16.20	P AB.borrowpit	0.50	0	0	mg/kg	S4UL	0	760.00
leum Hydroca												
Aliphatic C5-C6	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	95000.00
Aliphatic C6-C8	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00
Aliphatic C8-C1	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	14000.00
liphatic C10-C1	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	21000.00
liphatic C12-C1	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	25000.00
liphatic C16-C2	91	0	LOD	1.00	BH AB029	0.20	SAND	0	mg/kg	S4UL	0	450000.00
liphatic C21-C3	91	0	LOD	42.00	BH AB040	0.50	SAND	0	mg/kg	S4UL	0	450000.00
Aliphatic C5-C3	91	0	LOD	42.00	BH AB040	0.50	SAND	0	mg/kg	-	0	
Aromatic C5-C7	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	76000.00
Aromatic C7-C8	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	87000.00
romatic C8-C1	91	0	LOD	1.00	BH AB035	0.20	TOPSOIL	0	mg/kg	S4UL	0	7200.00
romatic C10-C1	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	9200.00
romatic C12-C1	91	0	LOD	3.00	TP AB024	0.20	TOPSOIL	0	mg/kg	S4UL	0	10000.00
romatic C16-C2	91	0	LOD	4.00	TP AB054	0.20	TOPSOIL	0	mg/kg	S4UL	0	7600.00
romatic C21-C3	91	0	LOD	62.00	BH AB040	0.50	SAND	0	mg/kg	S4UL	0	7800.00
Aromatic C5-C3	91	0	LOD	62.00	BH AB040	0.50	SAND	0	mg/kg	-	0	
TPH Ali/Aro Tot	91	0	LOD	103.00	BH AB040	0.50	SAND	0	mg/kg	-	0	
BTEX												
Benzene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	C4SL	0	230.00
Toluene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	87000.00
Ethylbenzene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
O-Xylene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	17000.00
M-Xylene	91	0	LOD	0.04	BH AB040	0.50	SAND	0	mg/kg	S4UL	0	17000.00
P-Xylene	91	0	LOD	0.04	BH AB040	0.50	SAND	0	mg/kg	S4UL	0	17000.00
Tert-Butyl Ether	91	0	LOD	LOD	0	0.00	0	0	mg/kg	AtkinsAtrisk	0	70800.00
PAHs												
Naphthalene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1200.00
Acenaphthylene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	29000.00
Acenaphthene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	29000.00
Fluorene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	20000.00
Phenanthrene	91	0	LOD	0.15	TP AB055	0.20	TOPSOIL	0	mg/kg	S4UL	0	6200.00
Anthracene	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	150000.00
Fluoranthene	91	0	LOD	0.35	TP AB055	0.20	TOPSOIL	0	mg/kg	S4UL	0	6300.00
Pyrene	91	0	LOD	0.30	TP AB055	0.20	TOPSOIL	0	mg/kg	S4UL	0	15000.00
enzo(a)anthrace	91	0	LOD	0.18	TP AB026	0.20	TOPSOIL	0	mg/kg	S4UL	0	49.00
Chrysene	91	0	LOD	0.23	TP AB055	0.20	TOPSOIL	0	mg/kg	S4UL	0	93.00
nzo(b)fluoranth	91	0	LOD	0.23	TP AB026	0.20	TOPSOIL	0	mg/kg	S4UL	0	13.00
nzo(k)fluoranth	91	0	LOD	0.10	TP AB026	0.20	TOPSOIL	0	mg/kg	S4UL	0	370.00
Benzo(a)pyrene	91	0	LOD	0.21	TP AB026	0.20	TOPSOIL	0	mg/kg	C4SL	0	21.00
eno(1,2,3-c,d)py	91	0	LOD	0.16	BH AB037	0.20	SAND	0	mg/kg	S4UL	0	150.00
enzo(a,h)anthra	91	0	LOD	LOD	0	0.00	0	0	mg/kg	S4UL	0	1.10
nzo(g,h,i)peryle	91	0	LOD	0.14	TP AB055	0.20	TOPSOIL	0	mg/kg	S4UL	0	1400.00
H - USEPA 16, T	91	0	LOD	1.90	TP AB026	0.20	TOPSOIL	0	mg/kg	-	0	

Lab No.																
Sample ID	BH AB040	BH AB040	BH AB026	BH AB026	BH AB026	BH AB015	BH AB039	TP AB024	TP AB024	TP AB026	TP AB026	BH AB024	BH AB031	BH AB031	BH AB032	BH AB032
Depth	0.20	0.50	0.20	0.50	1.20	0.50	1.20	0.20	0.60	0.20	0.60	0.50	0.20	0.50	0.20	0.50
Strata	SAND	SAND	TOPSOIL	SAND	SAND	CLAY	SAND	TOPSOIL	SAND	TOPSOIL	SAND	SAND	TOPSOIL	SAND	TOPSOIL	SAND
Sample Type																
Date	06-Apr-21	06-Apr-21	07-Apr-21	07-Apr-21	07-Apr-21	06-Apr-21	06-Apr-21	07-Apr-21	07-Apr-21	07-Apr-21	07-Apr-21	13-Apr-21	13-Apr-21	13-Apr-21	12-Apr-21	12-Apr-21
Metals																
Arsenic	<1	<1	11.00	<1	4.00	3.00	2.00	5.00	8.00	2.00	<1	4.00	2.00	1.00	3.00	3.00
ron, Water Solu	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	1.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	8.00	4.00	28.00	16.00	9.00	9.00	12.00	8.00	9.00	8.00	7.00	6.00	5.00	4.00	7.00	11.00
omium, Hexava	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	3.00	2.00	7.00	4.00	3.00	3.00	4.00	6.00	3.00	8.00	3.00	<1	2.00	1.00	9.00	3.00
Lead	6.00	2.00	15.00	7.00	4.00	23.00	9.00	21.00	11.00	23.00	10.00	4.00	10.00	5.00	30.00	6.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	5.00	3.00	17.00	8.00	6.00	7.00	7.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00	5.00	9.00
Selenium	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	11.00	6.00	30.00	13.00	11.00	17.00	20.00	30.00	15.00	35.00	14.00	12.00	16.00	10.00	36.00	17.00
Inorganics																
pH	7.30	0.00	6.34	6.41	6.61	6.19	6.96	6.03	5.95	6.23	6.10	6.02	6.11	6.15	5.67	6.32
Cyanide, Free	<1		<1					<1			<1		<1		<1	
Organic Matter (	1.00		1.40	2.50	1.10	0.40	0.70	5.10	2.10	2.40	0.90	0.20	1.10	0.50	2.10	0.20
ganic matter (T	0.55	0.79	0.81	1.42	0.65	0.23	0.38	2.97	1.21	1.41	0.51	0.09	0.65	0.28	1.22	0.11
Aqueous Extra	30.00		<10	<10	20.00	20.00	<10	<10	<10	<10	<10	<10	30.00	<10	<10	<10
Sulphide	<5		<5	73.00	42.00	47.00	71.00	<5	7.00	<5	<5	<5	<5	<5	<5	<5
Asbestos in Soi	NAD	NAD	NAD					NAD		NAD			NAD		NAD	
estos Quantifica	N/A	N/A	N/A					N/A		N/A			N/A		N/A	
Phenols																
Total Phenols	<0.2		<0.2					<0.2			<0.2		<0.2		<0.2	
leum Hydroca																
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C16-C2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C21-C3	6.00	42.00	<1	8.00	5.00	13.00	1.00	13.00	3.00	8.00	2.00	<1	2.00	<1	6.00	<1
Aliphatic C5-C3	6.00	42.00	<1	8.00	5.00	13.00	1.00	13.00	3.00	8.00	2.00	<1	2.00	<1	6.00	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
romatic C8-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C12-C1	<1	<1	<1	1.00	1.00	<1	<1	3.00	<1	1.00	<1	<1	<1	<1	<1	<1
romatic C16-C2	<1	<1	<1	<1	<1	<1	<1	1.00	<1	2.00	<1	<1	<1	<1	1.00	<1
romatic C21-C3	2.00	62.00	1.00	9.00	10.00	3.00	1.00	16.00	2.00	12.00	2.00	<1	1.00	<1	8.00	<1
Aromatic C5-C3	2.00	62.00	1.00	11.00	12.00	3.00	1.00	20.00	3.00	16.00	2.00	<1	1.00	<1	9.00	<1
TPH Ali/Aro Tot	8.00	103.00	1.00	18.00	17.00	17.00	2.00	34.00	6.00	24.00	4.00	<1	3.00	<1	15.00	<1
BTEX																
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03	<0.03
P-Xylene	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tert-Butyl Ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.10	<0.03	<0.03	<0.03	<0.03	0.09	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.12	<0.08	0.34	<0.08	<0.08	<0.08	<0.08	0.28	<0.08
Pyrene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.11	<0.07	0.28	<0.07	<0.07	<0.07	<0.07	0.22	<0.07
enzo(a)anthrace	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.07	<0.04	0.18	<0.04	<0.04	<0.04	<0.04	0.13	<0.04
Chrysene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.21	<0.06	<0.06	<0.06	<0.06	0.16	<0.06
nzo(b)fluoranth	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	<0.05	0.23	<0.05	<0.05	<0.05	<0.05	0.19	<0.05
nzo(k)fluoranth	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.10	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.07	<0.04	0.21	<0.04	<0.04	<0.04	<0.04	0.15	<0.04
eno(1,2,3-c,d)py	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	0.13	<0.03	<0.03	<0.03	<0.03	0.10	<0.03
enzo(a,h)anthra	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
nzo(g,h,i)peryle	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	0.08	<0.05
H - USEPA 16, T	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.49	<0.08	1.90	<0.08	<0.08	<0.08	<0.08	1.40	<0.08

Lab No.																
Sample ID	BH AB012A	BH AB021	BH AB021	BH AB022	BH AB022	TP AB055	TP AB055	TP AB056	TP AB056	BH AB019A	BH AB019A	BH AB023	BH AB030	BH AB030	BH AB029	BH AB029
Depth	1.20	0.20	1.20	0.20	0.50	0.20	0.80	0.20	0.50	0.10	0.50	0.50	0.30	0.50	0.20	0.50
Strata	SAND	SAND	SAND	TOPSOIL	CLAY	TOPSOIL	SAND	TOPSOIL	CLAY	TOPSOIL	CLAY	SAND	MG	SAND	SAND	SAND
Sample Type																
Date	14-Apr-21	08-Apr-21	08-Apr-21	08-Apr-21	08-Apr-21	12-Apr-21	12-Apr-21	12-Apr-21	12-Apr-21	16-Mar-21	16-Mar-21	12-Apr-21	12-Apr-21	12-Apr-21	09-Apr-21	09-Apr-21
Metals																
Arsenic	<1	2.00	2.00	6.00	6.00	7.00	2.00	2.00	2.00	32.00	10.00	6.00	2.00	25.00	4.00	4.00
ron, Water Solu	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.70	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	9.00	11.00	11.00	10.00	12.00	10.00	7.00	10.00	14.00	32.00	38.00	13.00	5.00	16.00	9.00	10.00
omium, Hexava	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	<1	2.00	2.00	4.00	3.00	8.00	3.00	8.00	6.00	9.00	6.00	5.00	2.00	52.00	10.00	2.00
Lead	5.00	6.00	6.00	13.00	11.00	27.00	4.00	32.00	8.00	32.00	18.00	17.00	4.00	32.00	18.00	7.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	3.00	7.00	7.00	6.00	7.00	7.00	6.00	7.00	12.00	18.00	21.00	7.00	5.00	63.00	5.00	9.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	2.00	<1	<1	<1	<1	<1
Zinc	7.00	15.00	14.00	18.00	19.00	84.00	11.00	32.00	21.00	58.00	64.00	20.00	8.00	25.00	41.00	22.00
Inorganics																
pH	7.37	6.02	5.98	5.66	5.65	7.08	7.98	7.09	7.68	5.91	6.49	5.73	7.51	8.22	7.54	7.15
Cyanide, Free		<1		<1		<1		<1					<1		<1	
Organic Matter (	0.40	0.20	0.30	1.00	1.10	5.40	<0.1	4.60	0.20	4.60	3.50	1.00	0.30	25.20	2.40	0.30
ganic matter (T	0.22	0.13	0.17	0.58	0.62	3.18	0.04	2.64	0.12	2.65	2.03	0.55	0.16	14.60	1.40	0.15
Aqueous Extra	20.00	20.00	<10	<10	20.00	<10	<10	<10	<10	30.00	100.00	<10	<10	30.00	<10	<10
Sulphide	<5	<5	<5	8.00	18.00	<5	<5	<5	<5	<5	<5	6.00	<5	<5	<5	<5
Asbestos in Soi		NAD		NAD		NAD		NAD		NAD			NAD		NAD	
estos Quantifica		N/A		N/A		N/A		N/A		N/A			N/A		N/A	
Phenols																
Total Phenols		<0.2		<0.2		<0.2		<0.2					<0.2		<0.2	
leum Hydroca																
Aliphatic C5-C6	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C16-C2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1
liphatic C21-C3	1.00	<1	<1	<1	<1	10.00	<1	8.00	<1	4.00	<1	1.00	4.00	<1	19.00	<1
Aliphatic C5-C3	1.00	<1	<1	<1	<1	10.00	<1	8.00	<1	4.00	<1	1.00	4.00	<1	21.00	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
romatic C8-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.00	<1
romatic C16-C2	<1	<1	<1	<1	<1	3.00	<1	1.00	<1	<1	<1	<1	2.00	<1	2.00	<1
romatic C21-C3	1.00	<1	<1	<1	<1	14.00	<1	7.00	<1	7.00	1.00	1.00	9.00	<1	13.00	<1
Aromatic C5-C3	1.00	<1	<1	<1	<1	16.00	<1	8.00	<1	7.00	1.00	1.00	13.00	<1	16.00	<1
TPH Ali/Aro Tot	2.00	<1	<1	<1	<1	27.00	<1	16.00	<1	12.00	1.00	2.00	17.00	<1	37.00	<1
BTEX																
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Tert-Butyl Ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs																
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	0.15	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.07	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	<0.08	<0.08	<0.08	<0.08	0.35	<0.08	0.12	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.24	<0.08
Pyrene	<0.07	<0.07	<0.07	<0.07	<0.07	0.30	<0.07	0.10	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.21	<0.07
enzo(a)anthrace	<0.04	<0.04	<0.04	<0.04	<0.04	0.14	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.11	<0.04
Chrysene	<0.06	<0.06	<0.06	<0.06	<0.06	0.23	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.16	<0.06
nzo(b)fluoranth	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.19	<0.05
nzo(k)fluoranth	<0.07	<0.07	<0.07	<0.07	<0.07	0.10	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	0.16	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.17	<0.04
eno(1,2,3-c,d)py	<0.03	<0.03	<0.03	<0.03	<0.03	0.11	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.15	<0.03
enzo(a,h)anthra	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
nzo(g,h,i)peryle	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	<0.05
H - USEPA 16, T	<0.08	<0.08	<0.08	<0.08	<0.08	1.89	<0.08	0.43	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	1.43	<0.08

Lab No.															
Sample ID	BH AB012	TP AB047	TP AB047	TP AB050	TP AB050	TP AB044	TP AB044	TP AB045	TP AB045	TP AB025	TP AB025	TP AB023	TP AB023	BH AB033	BH AB033
Depth	0.50	0.60	1.50	0.20	0.60	0.70	1.60	0.20	1.00	0.20	0.60	0.60	1.50	0.50	1.20
Strata	CLAY	SAND	CLAY	SAND	SAND	SAND	CLAY	CLAY	SAND	TOPSOIL	SAND	CLAY	CLAY	SAND	SAND
Sample Type															
Date	13-Apr-21	13-Apr-21	13-Apr-21	13-Apr-21	13-Apr-21	14-Apr-21	14-Apr-21	13-Apr-21	13-Apr-21	08-Apr-21	08-Apr-21	08-Apr-21	08-Apr-21	14-Apr-21	14-Apr-21
Metals															
Arsenic	6.00	<1	4.00	3.00	<1	2.00	2.00	2.00	3.00	4.00	5.00	5.00	5.00	2.00	2.00
ron, Water Solu	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	24.00	4.00	8.00	5.00	<1	7.00	11.00	6.00	11.00	12.00	13.00	14.00	11.00	9.00	9.00
omium, Hexava	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	6.00	<1	<1	2.00	<1	<1	3.00	2.00	1.00	16.00	11.00	4.00	4.00	3.00	2.00
Lead	14.00	3.00	5.00	14.00	<1	5.00	7.00	12.00	8.00	28.00	29.00	8.00	7.00	7.00	7.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	17.00	2.00	7.00	2.00	<1	6.00	11.00	3.00	9.00	8.00	8.00	11.00	10.00	7.00	7.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	38.00	<5	10.00	15.00	<5	13.00	18.00	17.00	21.00	39.00	38.00	23.00	18.00	11.00	12.00
Inorganics															
pH	6.64	6.48	6.67	5.52	5.59	6.45	7.01	5.70	5.39	7.56	7.55	7.03	7.00	6.91	6.47
Cyanide, Free	<1			<1				<1		<1					
Organic Matter (	0.80	0.20	<0.1	1.00	<0.1	0.40	<0.1	2.70	0.60	3.40	2.90	0.30	<0.1	0.30	0.30
ganic matter (T	0.48	0.12	0.05	0.58	<0.03	0.20	0.06	1.55	0.35	2.02	1.67	0.15	0.06	0.20	0.17
Aqueous Extra	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	20.00		
Sulphide	310.00	<5	11.00	<5	<5	<5	<5	<5	16.00	<5	<5	51.00	33.00	<5	<5
Asbestos in Soi				NAD				NAD		NAD					
estos Quantifica				N/A				N/A		N/A					
Phenols															
Total Phenols	<0.2			<0.2				<0.2		<0.2					
leum Hydroca															
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C16-C2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C21-C3	<1	<1	<1	3.00	<1	<1	<1	9.00	<1	5.00	7.00	<1	<1	<1	<1
Aliphatic C5-C3	<1	<1	<1	3.00	<1	<1	<1	9.00	<1	5.00	7.00	<1	<1	<1	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
romatic C8-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C16-C2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C21-C3	<1	<1	<1	4.00	<1	<1	<1	12.00	<1	5.00	6.00	<1	<1	<1	1.00
Aromatic C5-C3	<1	<1	<1	4.00	<1	<1	<1	12.00	<1	5.00	6.00	<1	<1	<1	1.00
TPH Ali/Aro Tot	<1	<1	<1	7.00	<1	<1	<1	21.00	<1	10.00	13.00	<1	<1	<1	1.00
BTEX															
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tert-Butyl Ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAHs															
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	<0.03	<0.03	0.07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	<0.08	<0.08	0.18	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	<0.07	<0.07	<0.07	0.14	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
enzo(a)anthrace	<0.04	<0.04	<0.04	0.07	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	<0.06	<0.06	<0.06	0.10	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
nzo(b)fluoranth	<0.05	<0.05	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
nzo(k)fluoranth	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	0.09	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
eno(1,2,3-c,d)py	<0.03	<0.03	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
enzo(a,h)anthra	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
nzo(g,h,i)peryle	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
H - USEPA 16, T	<0.08	<0.08	<0.08	0.86	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units	Screening Value Type	LOD	POS (Park) 1% SOM	BH AB026 0.20	BH AB026 0.50	BH AB026 1.20
VOCs															
.1-Trichloroeth	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	57000.00	<0.001	<0.001	<0.001
,2-Tetrachloroe	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	1800.00	<0.001	<0.001	<0.001
,2-Trichloroeth	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	766.00	<0.001	<0.001	<0.001
1-Dichloroethan	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	11200.00	<0.001	<0.001	<0.001
1-Dichloroprope	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
3-Trichlorobenz	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	770.00	<0.003	<0.003	<0.003
4-Trichlorobenz	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	1700.00	<0.003	<0.003	<0.003
4-Trimethylben	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	225.00	<0.001	<0.001	<0.001
romo-3-chlorop	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.002	<0.002	<0.002
2-Dibromoetha	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
2-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	24000.00	<0.001	<0.001	<0.001
2-Dichloroetha	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	21.00	<0.002	<0.002	<0.002
2-Dichloropropa	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	79.60	<0.001	<0.001	<0.001
5-Trimethylben	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
3-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	390.00	<0.001	<0.001	<0.001
3-Dichloropropa	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
4-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	36000.00	<0.001	<0.001	<0.001
2-Dichloropropa	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0		<0.001	<0.001	<0.001
2-Chlorotoluene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
4-Chlorotoluene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
Benzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	90	<0.001	<0.001	<0.001
Bromobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	986.00	<0.001	<0.001	<0.001
modichlorometh	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	33.9	<0.01	<0.01	<0.01
Bromomethane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
Butylbenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
Chlorobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	1300.00	<0.001	<0.001	<0.001
Chloroethane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	82400.00	<0.001	<0.001	<0.001
Chloromethane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	73.80	<0.01	<0.01	<0.01
1,3-dichloropro	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
romochlorometh	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	231.00	<0.003	<0.003	<0.003
Dibromomethan	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
Ethylbenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	17000.00	<0.001	<0.001	<0.001
xachlorobutadi	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	48.00	<0.001	<0.001	<0.001
sopropylbenzen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	14800.00	<0.001	<0.001	<0.001
n-Propylbenzen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	27500.00	<0.001	<0.001	<0.001
o-Xylene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	17000.00	<0.001	<0.001	<0.001
p & m-Xylene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	17000.00	<0.001	<0.001	<0.001
-Isopropyltolue	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
ec-Butylbenzen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
Styrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	5640.00	<0.001	<0.001	<0.001
ert-Butylbenzen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.002	<0.002	<0.002
Tetrachloroethene (Tetrachloroet	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	CLAIRE C4SL	0	1400.00	<0.001	<0.001	<0.001
Toluene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	87000.00	<0.001	<0.001	<0.001
-1,3-dichloropr	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
thene (trichlor	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	CLAIRE C4SL	0	41.00	<0.001	<0.001	<0.001
hlorofluorometh	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.001	<0.001	<0.001
chloroethene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	CLAIRE C4SL	0	18.00	<0.001	<0.001	<0.001
SVOCs															
4-Trichlorobenz	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	1700.00	<0.1	<0.1	<0.1
2-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	24000.00	<0.1	<0.1	<0.1
3-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	390.00	<0.1	<0.1	<0.1
4-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	36000.00	<0.1	<0.1	<0.1
,5-Trichlorophe	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
,6-Trichlorophe	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
4-Dichlorophen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
4-Dimethylpher	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	8740.00	<0.1	<0.1	<0.1
,4-Dinitrotoluer	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	973.00	<0.1	<0.1	<0.1
,6-Dinitrotoluer	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	489.00	<0.1	<0.1	<0.1
Chloronaphthale	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	659.00	<0.1	<0.1	<0.1
2-Chlorophenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	1100.00	<0.1	<0.1	<0.1
Methylnaphthale	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
2-Methylphenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	48700.00	<0.1	<0.1	<0.1
2-Nitrophenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
4-Chloro-3-methylphenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
4-Chloroaniline	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
4-Chlorophenyl phenyl ether	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
4-Methylphenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	48100.00	<0.1	<0.1	<0.1
4-Nitroaniline	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Acenaphthene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	29000.00	<0.1	<0.1	<0.1
Acenaphthylene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	29000.00	<0.1	<0.1	<0.1
Aniline	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Anthracene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	150000.00	<0.1	<0.1	<0.1
Anthraquinone	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Azobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Benzo(a)anthracene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	49.00	<0.1	<0.1	<0.1
Benzo(a)pyrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	11.00	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	13.00	<0.1	<0.1	<0.1
Benzo(ghi)perylene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	1400.00	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	370.00	<0.1	<0.1	<0.1
Bis(2-chloroethoxy)methane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Bis(2-chloroethyl)ether	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Bis(2-chloroisopropyl)ether	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Bromophenyl phenyl ether	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Butyl benzyl phthalate	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	257000.00	<0.1	<0.1	<0.1
Carbazole	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Chrysene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	93.00	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	1.10	<0.1	<0.1	<0.1
Dibenzofuran	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Dibutyl phthalate (Di-n-butyl phthalate)	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	2620.00	<0.1	<0.1	<0.1
Diethyl phthalate	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	85800.00	<0.1	<0.1	<0.1
Dimethylphthalate	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Fluoranthene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	6300.00	<0.1	<0.1	<0.1
Fluorene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	20000.00	<0.1	<0.1	<0.1
Hexachlorobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	30.00	<0.1	<0.1	<0.1
Hexachloroethane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	AtkinsAtrisk	0	115.00	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	150.00	<0.1	<0.1	<0.1
Isophorone	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Naphthalene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	1200.00	<0.1	<0.1	<0.1
Nitrobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	-	0		<0.1	<0.1	<0.1
Phenanthrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	6200.00	<0.1	<0.1	<0.1
Phenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	760.00	<0.1	<0.1	<0.1
Pyrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg	S4UL	0	15000.00	<0.1	<0.1	<0.1

GE A6.1
A66 Appleby to Brough (Warcop)
Soil Sample Screener
1% POS Park

Sample Matrix Code	No. of Samples Tested	No. of Exceedances	Minimum	Maximum	Location of Max	Depth of Max	Strata	Method Code	Units
Metals									
Arsenic	91	0	LOD	32.00	BH AB019A	0.10	TOPSOIL	0	mg/kg
ron, Water Solu	91	0	LOD	1.40	BH AB046	0.20	TOPSOIL	0	mg/kg
Cadmium	91	0	LOD	1.20	TP AB057	1.50	0	0	mg/kg
Chromium	91	0	LOD	38.00	BH AB019A	0.50	CLAY	0	mg/kg
omium, Hexava	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Copper	91	0	LOD	52.00	BH AB030	0.50	SAND	0	mg/kg
Lead	91	0	LOD	41.00	TP AB057	0.20	0	0	mg/kg
Mercury	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Nickel	91	0	LOD	63.00	BH AB030	0.50	SAND	0	mg/kg
Selenium	91	0	LOD	2.00	BH AB019A	0.50	CLAY	0	mg/kg
Zinc	91	0	LOD	84.00	TP AB055	0.20	TOPSOIL	0	mg/kg
Inorganics									
pH	90	60	5.39	8.34	TP AB069	1.50	0	0	pH Units
Cyanide, Free	33	0	LOD	LOD	BH AB040	0.50	SAND	0	mg/kg
Organic Matter (	90	0	LOD	25.20	BH AB030	0.50	SAND	0	%
anic matter (T	91	0	LOD	14.60	BH AB030	0.50	SAND	0	%
Aqueous Extra	78	0	LOD	100.00	BH AB019A	0.50	CLAY	0	mg/l
Sulphide	90	0	LOD	310.00	BH AB012	0.50	CLAY	0	mg/kg
Asbestos in Soi	31	0			BH AB026	0.50	SAND	0	-
estos Quantifica	31	0			BH AB026	0.50	SAND	0	-
Phenols									
Total Phenols	33	0	LOD	16.20	P AB.borrowpit	0.50	0	0	mg/kg
leum Hydroca									
Aliphatic C5-C6	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Aliphatic C6-C8	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Aliphatic C8-C10	91	0	LOD	LOD	0	0.00	0	0	mg/kg
liphatic C10-C1	91	0	LOD	LOD	0	0.00	0	0	mg/kg
liphatic C12-C1	91	0	LOD	LOD	0	0.00	0	0	mg/kg
liphatic C16-C2	91	0	LOD	1.00	BH AB029	0.20	SAND	0	mg/kg
liphatic C21-C3	91	0	LOD	42.00	BH AB040	0.50	SAND	0	mg/kg
Aliphatic C5-C3	91	0	LOD	42.00	BH AB040	0.50	SAND	0	mg/kg
Aromatic C5-C7	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Aromatic C7-C8	91	0	LOD	LOD	0	0.00	0	0	mg/kg
romatic C8-C1	91	0	LOD	1.00	BH AB035	0.20	TOPSOIL	0	mg/kg
romatic C10-C1	91	0	LOD	LOD	0	0.00	0	0	mg/kg
romatic C12-C1	91	0	LOD	3.00	TP AB024	0.20	TOPSOIL	0	mg/kg
romatic C16-C2	91	0	LOD	4.00	TP AB054	0.20	TOPSOIL	0	mg/kg
romatic C21-C3	91	0	LOD	62.00	BH AB040	0.50	SAND	0	mg/kg
romatic C5-C3	91	0	LOD	62.00	BH AB040	0.50	SAND	0	mg/kg
TPH Ali/Aro Tota	91	0	LOD	103.00	BH AB040	0.50	SAND	0	mg/kg
BTEX									
Benzene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Toluene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Ethylbenzene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
O-Xylene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
M-Xylene	91	0	LOD	0.04	BH AB040	0.50	SAND	0	mg/kg
P-Xylene	91	0	LOD	0.04	BH AB040	0.50	SAND	0	mg/kg
Tert-Butyl Ether	91	0	LOD	LOD	0	0.00	0	0	mg/kg
PAHs									
Naphthalene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Acenaphthylene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Acenaphthene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Fluorene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Phenanthrene	91	0	LOD	0.15	TP AB055	0.20	TOPSOIL	0	mg/kg
Anthracene	91	0	LOD	LOD	0	0.00	0	0	mg/kg
Fluoranthene	91	0	LOD	0.35	TP AB055	0.20	TOPSOIL	0	mg/kg
Pyrene	91	0	LOD	0.30	TP AB055	0.20	TOPSOIL	0	mg/kg
enzo(a)anthrace	91	0	LOD	0.18	TP AB026	0.20	TOPSOIL	0	mg/kg
Chrysene	91	0	LOD	0.23	TP AB055	0.20	TOPSOIL	0	mg/kg
nzo(b)fluoranth	91	0	LOD	0.23	TP AB026	0.20	TOPSOIL	0	mg/kg
nzo(k)fluoranth	91	0	LOD	0.10	TP AB026	0.20	TOPSOIL	0	mg/kg
Benzo(a)pyrene	91	0	LOD	0.21	TP AB026	0.20	TOPSOIL	0	mg/kg
eno(1,2,3-c,d)py	91	0	LOD	0.16	BH AB037	0.20	SAND	0	mg/kg
enzo(a,h)anthra	91	0	LOD	LOD	0	0.00	0	0	mg/kg
nzo(g,h,i)peryle	91	0	LOD	0.14	TP AB055	0.20	TOPSOIL	0	mg/kg
H - USEPA 16, T	91	0	LOD	1.90	TP AB026	0.20	TOPSOIL	0	mg/kg
VOCs									
1,1-Trichloroetha	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
,2-Tetrachloroe	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
,2-Trichloroetha	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
1-Dichloroetha	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
1-Dichloroprope	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
3-Trichlorobenz	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Trichlorobenz	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Trimethylben	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
romo-3-chlorop	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Dibromoetha	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
1,2-Dichloroetha	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Dichloropropa	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
5-Trimethylben	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
3-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
3-Dichloropropa	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Dichloropropa	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Chlorotoluene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Chlorotoluene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Benzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Bromobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
modichlorometh	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Bromomethane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Butylbenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Chlorobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Chloroethane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Chloromethane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
1,3-dichloropro	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
omochlorometh	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Dibromomethan	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Ethylbenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
xachlorobutadi	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
sopropylbenzen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
n-Propylbenzen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
o-Xylene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
p & m-Xylene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
-Isopropyltolue	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
ec-Butylbenzen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Styrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
ert-Butylbenzen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Tetrachloroeth ene (Tetrachloroet	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Toluene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
-1,3-dichloropr	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
thene (trichlor	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
hlorofluorometh	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
chloroethene ,	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
SVOCs									
4-Trichlorobenz	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
3-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Dichlorobenze	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
,5-Trichlorophe	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
,6-Trichlorophe	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Dichlorophen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Dimethylphen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
,4-Dinitrotoluen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
,6-Dinitrotoluen	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Chloronaphthale	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Chlorophenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Methylnaphthale	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Methylphenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
2-Nitrophenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Chloro-3-methylphenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Chloroaniline	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Chlorophenyl phenyl ether	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Methylphenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
4-Nitroaniline	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Acenaphthene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Acenaphthylene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Aniline	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Anthracene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Anthraquinone	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Azobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Benzo(a)anthracene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Benzo(a)pyrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Benzo(b)fluoranthene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Benzo(ghi)perylene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Benzo(k)fluoranthene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Bis(2-chloroethoxy)methane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Bis(2-chloroethyl)ether	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Bis(2-chloroisopropyl)ether	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Bromophenyl phenyl ether	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Butyl benzyl phthalate	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Carbazole	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Chrysene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Dibenz(a,h)anthracene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Dibenzofuran	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Dibutyl phthalate (Di-n-butyl phthalate)	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Diethyl phthalate	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Dimethylphthalate	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Fluoranthene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Fluorene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Hexachlorobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Hexachloroethane	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Indeno(1,2,3-cd)pyrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Isophorone	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Naphthalene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Nitrobenzene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Phenanthrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Phenol	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg
Pyrene	3	0	LOD	LOD	BH AB040	0.20	SAND	0	mg/kg

Sample ID	BH AB038	BH AB038	BH AB034	TP AB051	TP AB051	TP AB053	TP AB053	TP AB054	TP AB054	P AB.borrowpit	P AB.borrowpit
Lab No.											
Depth	0.20	0.50	0.50	0.60	1.30	0.20	1.50	0.20	0.60	0.20	0.50
Strata	TOPSOIL	SAND	SAND	SAND	SAND	TOPSOIL	CLAY	TOPSOIL	SAND	TOPSOIL	SAND
Sample Type											
Date	14-Apr-21	14-Apr-21	15-Apr-21	12-Apr-21	12-Apr-21	12-Apr-21	12-Apr-21	12-Apr-21	12-Apr-21	21-Apr-21	21-Apr-21
Arsenic	2.00	1.00	2.00	2.00	<1	4.00	6.00	2.00	<1	3.00	6.00
ron, Water Solu	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.60	<0.5	<0.5	<0.5	<0.5
Chromium	7.00	9.00	7.00	6.00	6.00	13.00	23.00	14.00	12.00	13.00	11.00
omium, Hexava	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	4.00	4.00	3.00	<1	2.00	6.00	10.00	6.00	3.00	3.00	3.00
Lead	8.00	7.00	5.00	5.00	3.00	29.00	11.00	20.00	13.00	8.00	5.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	5.00	7.00	5.00	5.00	5.00	9.00	21.00	8.00	7.00	8.00	9.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	15.00	15.00	10.00	11.00	10.00	34.00	37.00	54.00	29.00	14.00	10.00
pH	6.74	7.43	7.38	7.04	6.94	6.45	7.54	6.16	6.12	6.01	6.30
Cyanide, Free	<1					<1		<1		<1	<1
Organic Matter (	1.00	0.20	0.30	0.30	<0.1	3.20	0.20	3.20	1.90	1.10	0.30
anic matter (T	0.57	0.13	0.18	0.18	<0.03	1.85	0.10	1.87	1.06	0.64	0.16
Aqueous Extra	<10	<10	<10	<10	<10	<10	<10	<10	<10		
Sulphide	8.00	11.00	47.00	<5	<5	<5	<5	<5	<5	6.00	10.00
Asbestos in Soi	NAD					NAD		NAD		NAD	
estos Quantifica	N/A					N/A		N/A		N/A	
Total Phenols	<0.2					0.30		0.40		<0.2	<0.2
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C16-C2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C21-C3	2.00	<1	<1	<1	<1	8.00	<1	16.00	3.00	2.00	<1
Aliphatic C5-C3	2.00	<1	<1	<1	<1	8.00	<1	16.00	3.00	2.00	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
romatic C8-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C16-C2	<1	<1	<1	<1	<1	2.00	<1	4.00	<1	<1	<1
romatic C21-C3	3.00	<1	<1	<1	<1	10.00	<1	13.00	3.00	3.00	<1
romatic C5-C3	3.00	<1	<1	<1	<1	12.00	<1	17.00	3.00	3.00	<1
TPH Ali/Aro Tota	5.00	<1	<1	<1	<1	20.00	<1	33.00	7.00	6.00	<1
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tert-Butyl Ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	<0.08	<0.08	<0.08	<0.08	0.10	<0.08	0.15	<0.08	<0.08	<0.08
Pyrene	<0.07	<0.07	<0.07	<0.07	<0.07	0.08	<0.07	0.13	<0.07	<0.07	<0.07
enzo(a)anthrace	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.08	<0.04	<0.04	<0.04
Chrysene	<0.06	<0.06	<0.06	<0.06	<0.06	0.07	<0.06	0.10	<0.06	<0.06	<0.06
nzo(b)fluoranth	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	0.10	<0.05	<0.05	<0.05
nzo(k)fluoranth	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	0.06	<0.04	0.10	<0.04	<0.04	<0.04
eno(1,2,3-c,d)py	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	0.06	<0.03	<0.03	<0.03
enzo(a,h)anthra	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
nzo(g,h,i)peryle	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
H - USEPA 16, T	<0.08	<0.08	<0.08	<0.08	<0.08	0.46	<0.08	0.72	<0.08	<0.08	<0.08

Sample ID	P AB.borrowpit	BH AB046	BH AB046	BH AB047	BH AB047	BH AB035	BH AB035	TP AB046	TP AB046	TP AB048	TP AB048
Lab No.											
Depth	0.75	0.20	1.00	0.50	1.00	0.20	0.50	0.50	3.00	0.50	1.00
Strata	SAND	TOPSOIL	SAND	SAND	SAND	TOPSOIL	SAND	TOPSOIL	SAND	SAND	CLAY
Sample Type											
Date	21-Apr-21	15-Apr-21	15-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	14-Apr-21	14-Apr-21	14-Apr-21	14-Apr-21
Arsenic	<1	1.00	4.00	2.00	2.00	3.00	2.00	3.00	1.00	2.00	3.00
ron, Water Solu	<1.0	1.40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	0.70	0.70	0.60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	8.00	16.00	23.00	19.00	18.00	8.00	5.00	14.00	15.00	12.00	11.00
omium, Hexava	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	2.00	12.00	14.00	14.00	14.00	8.00	2.00	7.00	5.00	4.00	2.00
Lead	3.00	29.00	10.00	9.00	9.00	16.00	5.00	8.00	7.00	7.00	7.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	7.00	9.00	17.00	14.00	14.00	3.00	5.00	11.00	12.00	10.00	10.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	8.00	39.00	21.00	23.00	24.00	25.00	11.00	17.00	16.00	13.00	14.00
pH	6.08	6.74	7.33	6.84	6.80	6.48	7.37	7.64	7.89	7.26	7.29
Cyanide, Free	<1	<1				<1					
Organic Matter (	<0.1	5.20	0.40	0.40	0.40	2.40	0.40	0.20	0.10	0.40	0.20
anic matter (T	<0.03	3.00	0.24	0.22	0.26	1.42	0.20	0.13	0.08	0.19	0.09
Aqueous Extra						<10	<10	<10	<10	<10	<10
Sulphide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Asbestos in Soi		NAD				NAD					
estos Quantifica		N/A				N/A					
Total Phenols	<0.2	<0.2				<0.2					
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C16-C2	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1
liphatic C21-C3	<1	5.00	<1	<1	<1	17.00	<1	<1	<1	<1	<1
Aliphatic C5-C3	<1	5.00	<1	<1	<1	19.00	<1	<1	<1	<1	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
romatic C8-C1	<1	<1	<1	<1	<1	1.00	<1	<1	<1	<1	<1
romatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C16-C2	<1	1.00	<1	<1	<1	2.00	<1	<1	<1	<1	<1
romatic C21-C3	<1	6.00	<1	<1	<1	10.00	<1	<1	<1	<1	<1
romatic C5-C3	<1	8.00	<1	<1	<1	13.00	<1	<1	<1	<1	<1
TPH Ali/Aro Tota	<1	13.00	<1	<1	<1	32.00	<1	<1	<1	<1	<1
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tert-Butyl Ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.03	0.08	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.08	0.20	<0.08	<0.08	<0.08	0.11	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	<0.07	0.17	<0.07	<0.07	<0.07	0.09	<0.07	<0.07	<0.07	<0.07	<0.07
enzo(a)anthrace	<0.04	0.08	<0.04	<0.04	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	<0.06	0.11	<0.06	<0.06	<0.06	0.06	<0.06	<0.06	<0.06	<0.06	<0.06
nzo(b)fluoranth	<0.05	0.10	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05
nzo(k)fluoranth	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	0.08	<0.04	<0.04	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	<0.04
eno(1,2,3-c,d)py	<0.03	0.06	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03
enzo(a,h)anthra	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
nzo(g,h,i)peryle	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
H - USEPA 16, T	<0.08	0.88	<0.08	<0.08	<0.08	0.52	<0.08	<0.08	<0.08	<0.08	<0.08

Sample ID	TP AB049	TP AB049	BH AB036	BH AB037	BH AB037	TP AB029	TP AB029	TP AB031	TP AB031	TP AB032	TP AB032
Lab No.											
Depth	0.20	1.00	0.50	0.20	0.50	0.20	0.50	0.10	1.20	0.50	2.40
Strata	SAND	CLAY	SAND	SAND	SAND	MG	SAND	TOPSOIL	SAND	TOPSOIL	SAND
Sample Type											
Date	14-Apr-21	14-Apr-21	21-Apr-21	20-Apr-21	20-Apr-21	29-Mar-21	29-Mar-21	29-Mar-21	29-Mar-21	29-Mar-21	29-Mar-21
Arsenic	2.00	2.00	<1	3.00	<1	2.00	2.00	1.00	<1	<1	<1
ron, Water Solu	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	8.00	9.00	5.00	7.00	6.00	6.00	6.00	5.00	7.00	7.00	8.00
omium, Hexava	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	3.00	2.00	2.00	4.00	3.00	5.00	2.00	3.00	4.00	2.00	4.00
Lead	11.00	6.00	4.00	17.00	5.00	17.00	6.00	11.00	4.00	4.00	4.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	6.00	7.00	2.00	3.00	4.00	4.00	3.00	2.00	7.00	5.00	7.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	19.00	13.00	8.00	18.00	10.00	18.00	7.00	13.00	11.00	12.00	12.00
pH	6.55	6.91	6.51	5.91	6.27	6.33	6.30	6.48	6.18	6.90	6.70
Cyanide, Free	<1			<1		<1				<1	
Organic Matter (	2.20	<0.1	0.40	2.70	0.50	2.70	1.30	1.60	<0.1	0.40	<0.1
anic matter (T	1.30	0.05	0.24	1.62	0.27	1.55	0.76	0.96	0.04	0.24	0.04
Aqueous Extra	<10	<10				<10	<10	<10	<10	<10	20.00
Sulphide	<5	<5	5.00	16.00	9.00	<5	<5	<5	8.00	<5	<5
Asbestos in Soi	NAD			NAD		NAD		NAD			
estos Quantifica	N/A			N/A		N/A		N/A			
Total Phenols	<0.2			<0.2		<0.2				<0.2	
Aliphatic C5-C6	<0.03	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C16-C2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C21-C3	5.00	<1	<1	18.00	1.00	5.00	2.00	3.00	<1	1.00	<1
Aliphatic C5-C3	5.00	<1	<1	18.00	1.00	5.00	2.00	3.00	<1	1.00	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
romatic C8-C1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1
romatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C12-C1	<1	<1	<1	1.00	<1	<1	<1	<1	<1	<1	<1
romatic C16-C2	1.00	<1	<1	3.00	<1	<1	<1	<1	<1	<1	<1
romatic C21-C3	7.00	<1	<1	16.00	3.00	6.00	2.00	3.00	<1	<1	<1
romatic C5-C3	9.00	<1	<1	22.00	3.00	6.00	2.00	3.00	<1	<1	<1
TPH Ali/Aro Tota	13.00	<1	<1	39.00	4.00	10.00	4.00	6.00	<1	1.00	<1
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tert-Butyl Ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	0.09	<0.03	<0.03	0.04	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	0.20	<0.08	<0.08	0.18	<0.08	0.17	<0.08	<0.08	<0.08	<0.08	<0.08
Pyrene	0.16	<0.07	<0.07	0.16	<0.07	0.15	<0.07	<0.07	<0.07	<0.07	<0.07
enzo(a)anthrace	0.10	<0.04	<0.04	0.08	<0.04	0.08	<0.04	<0.04	<0.04	<0.04	<0.04
Chrysene	0.11	<0.06	<0.06	0.13	<0.06	0.14	<0.06	<0.06	<0.06	<0.06	<0.06
nzo(b)fluoranth	0.10	<0.05	<0.05	0.18	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	<0.05
nzo(k)fluoranth	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	0.09	<0.04	<0.04	0.16	<0.04	0.11	<0.04	0.05	<0.04	<0.04	<0.04
eno(1,2,3-c,d)py	0.06	<0.03	<0.03	0.16	<0.03	0.07	<0.03	0.04	<0.03	<0.03	<0.03
enzo(a,h)anthra	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
nzo(g,h,i)peryle	<0.05	<0.05	<0.05	0.13	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05
H - USEPA 16, T	0.91	<0.08	<0.08	1.22	<0.08	0.94	<0.08	0.09	<0.08	<0.08	<0.08

Sample ID	BH AB025	BH AB048	P AB.borrowpit	TP AB002	TP AB002	TP AB004	TP AB004	TP AB057	TP AB057	TP AB069	TP AB069
Lab No.											
Depth	0.20	0.50	0.50	0.20	0.50	0.10	1.00	0.20	1.50	0.50	1.50
Strata	SAND										
Sample Type											
Date	14-Apr-21	19-Apr-21	21-Apr-21	21-Apr-21	21-Apr-21	21-Apr-21	21-Apr-21	22-Apr-21	22-Apr-21	22-Apr-21	22-Apr-21
Arsenic	9.00	1.00	<1	1.00	<1	14.00	<1	3.00	2.00	2.00	3.00
ron, Water Solu	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.60	<0.5	1.20	<0.5	<0.5
Chromium	14.00	6.00	11.00	9.00	5.00	12.00	10.00	18.00	17.00	13.00	15.00
omium, Hexava	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	3.00	2.00	3.00	3.00	<1	8.00	6.00	16.00	14.00	10.00	9.00
Lead	14.00	13.00	6.00	17.00	5.00	14.00	6.00	41.00	10.00	9.00	9.00
Mercury	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	7.00	3.00	7.00	4.00	4.00	8.00	9.00	9.00	28.00	13.00	15.00
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	22.00	16.00	10.00	14.00	10.00	27.00	16.00	58.00	35.00	15.00	21.00
pH	6.20	6.76	6.32	5.41	5.93	6.63	7.90	7.05	7.91	7.84	8.34
Cyanide, Free	<1		<1	<1		<1		<1			
Organic Matter (	1.50	0.40	0.40	2.30	0.20	6.60	0.20	7.30	0.20	0.30	<0.1
anic matter (T	0.88	0.25	0.21	1.34	0.13	3.78	0.13	4.25	0.10	0.16	0.07
Aqueous Extra	<10	<11	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sulphide	<5	<5	8.00	6.00	<5	<5	<5	13.00	5.00	10.00	<5
Asbestos in Soi	NAD			NAD		NAD		NAD			
estos Quantifica	N/A			N/A		N/A		N/A			
Total Phenols	<0.2		16.20	<0.2		<0.2		<0.2			
Aliphatic C5-C6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C6-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic C8-C10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C16-C2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
liphatic C21-C3	2.00	<1	<1	8.00	<1	11.00	<1	13.00	<1	<1	<1
Aliphatic C5-C3	2.00	<1	<1	8.00	<1	11.00	<1	13.00	<1	<1	<1
Aromatic C5-C7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
romatic C8-C1	<1	<1	<1	<1	<1	<1	<1	1.00	<1	<1	<1
romatic C10-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C12-C1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
romatic C16-C2	<1	<1	<1	<1	<1	1.00	<1	1.00	<1	<1	<1
romatic C21-C3	4.00	<1	<1	11.00	2.00	24.00	<1	8.00	<1	<1	<1
romatic C5-C3	4.00	<1	<1	11.00	2.00	26.00	<1	11.00	<1	<1	<1
TPH Ali/Aro Tota	6.00	<1	<1	19.00	2.00	38.00	<1	24.00	<1	<1	<1
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylbenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
O-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
P-Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tert-Butyl Ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Naphthalene	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluorene	<0.01	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Phenanthrene	<0.03	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Anthracene	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	<0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
enzo(a)anthrace	<0.04	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Chrysene	<0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
nzo(b)fluoranth	<0.05	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
nzo(k)fluoranth	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)pyrene	<0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
eno(1,2,3-c,d)py	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
enzo(a,h)anthra	<0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
nzo(g,h,i)peryle	<0.05	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
H - USEPA 16, T	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D5.2 - AB T1 WQS CWRA

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D5.2 - AB T1 WQS CWRA
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000026

Rev	Suit. Code	Suitability		Purpose of Issue		
P02	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	10/12/21	10/12/21	13/12/21	14/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Reference				BH AB001	BH AB008	BH AB008	BH AB009	BH AB009	BH AB010	BH AB010	BH AB011	BH AB020	BH AB025	BH AB026	BH AB027	BH AB028	BH AB031	BH AB032	BH AB033
Depth (m)				7.50	3.50	12.00	6.00	15.00	6.00	12.50	6.00	3.60	3.00	1.50	14.00	3.00	3.90	3.70	5.20
Sample Type				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Date Sampled				09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	10-Jun-21	10-Jun-21	10-Jun-21
	Units	GAC	Source																
General Inorganics																			
pH (w)	pH	>6.5 x <9.5	UK DWS	7.34	7.7	13.18	8.25	8.18	7.97	8.06	7.79	7.45	7.26	7.45	12.99	7.71	8.03	7.78	7.05
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	498	461	3220	2590	714	651	606	320	810	391	1493	2700	1354	680	642	1713
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		201	225	582	230	139	282	203	128	344	225	281	422	151	219	256	354
Hardness Total	mg/l Ca CO3	No screening value		207	185	707	347	193	305	244	167	457	185	360	216	219	323	347	990
Total Suspended Solids (w)	mg/l	No screening value		<10	<10	49	<10	<10	219	<10	72	73	217	65	<10	64	46	<10	33
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS	0.1	0.24	0.42	0.06	0.05	0.37	0.02	0.08	0.02	0.04	0.15	0.44	0.02	0.05	0.12	0.19
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value		0.0011	0.00653	0.41958	0.006	0.00406	0.01954	0.00131	0.00271	0.00035	0.00044	0.0026	0.43956	0.00054	0.00264	0.00407	0.00133
Chloride (w)	mg/l	250	UK DWS	39	27	35	687	133	55	76	13	40	11	372	17	354	46	27	170
Nitrite (w)	mg/l	0.5	UK DWS	0.3	<0.1	<0.1	<0.1	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.3	6.7
Nitrate (w)	mg/l	50	UK DWS	21.5	<0.1	<0.1	37.6	21.8	<0.1	35.3	26.1	28.4	<0.1	0.3	0.3	10.5	34.1	64.5	228
Sulphate (w)	mg/l	250	UK DWS	9	25	40	84	34	22	21	18	88	1	20	28	24	86	23	203
Sulphide (w)	mg/l	No screening value		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
DOC (w)	mg/l	No screening value		1.3	<0.2	<0.2	3.7	3.3	16.3	0.7	2.5	1	3.5	2.7	119	2.1	1.6	1.5	5.5
Phenols																			
Total Phenols	µg/l	7.7	Freshwater EQS																
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																
PAHs																			
Naphthalene	µg/l	130	EQS	<0.01	0.07	0.33	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	0.05	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	µg/l	0.01	LOD	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	µg/l	0.01	LOD	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	µg/l	0.01	LOD	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	µg/l	0.1	EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)anthracene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(b)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(k)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)pyrene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(ghi)perylene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total PAH (sum of 16)	µg/l	0.1	UK DWS	<0.01	0.07	0.47	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	0.06	<0.01	<0.01	<0.01	<0.01
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																
Metals																			
Arsenic (dissolved)	µg/l	10	UK DWS	<1	3	2	<1	<1	4	<1	<1	<1	11	6	<1	<1	<1	<1	<1
Boron (dissolved)	µg/l	1000	UK DWS																
Cadmium (dissolved)	µg/l	0.45	EQS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Calcium (dissolved)	mg/l	No screening value		72	63	283	121	61	101	66	56	156	69	123	87	78	100	117	356
Copper (dissolved)	µg/l	1	EQS	12	7	28	8	19	8	8	8	10	7	9	17	9	7	8	9
Chromium (dissolved)	µg/l	50	UK DWS	10	3	34	8	9	<1	10	5	7	<1	<1	3	<1	8	8	8
Chromium (hexavalent) (w)	mg/l	3.4	EQS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (trivalent) (w)	mg/l	No screening value		0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lead (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1
Manganese (dissolved)	µg/l	50	UK DWS																
Magnesium (dissolved)	mg/l	No screening value																	
Mercury (dissolved)	µg/l	0.07	EQS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum (dissolved)	µg/l	0.5	LOD																
Nickel (dissolved)	µg/l	20	UK DWS	2	3	2	<1	1	3	<1	<1	4	8	8	2	<1	1	1	9
Potassium (dissolved)	mg/l	No screening value		3	5	9	15	7	5	4	4	3	<1	2	24	7	8	5	2
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sodium (dissolved)	mg/l	200	UK DWS	20	34	72	409	95	26	44	8	13	15	207	246	231	32	15	35
Vanadium (dissolved)	µg/l	20	EQS																
Zinc (dissolved)	µg/l	10.9	EQS	4	3	8	10	22	3	50	6	3	17	2	1	2	2	3	6
BTEX																			
Benzene	µg/l	1	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	µg/l	74	EQS	<1	3	8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/l	300	WHO DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
p & m-xylene	µg/l	30	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-xylene	µg/l	30	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPH																			
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	<1	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	4	<1	<1	<1	<1
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	<5	<5	16	<5	<5	<5	<5	<5	<5	<5	<5	32	<5	<5	<5	<5
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	<5	<5	33	<5	<5	<5	<5	<5	<5	<5	<5	15	<5	<5	<5	<5
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	93	29	227	<5	11	<10	<5	<5	<5	<5	<5	15	<5	<5	<5	<5
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5	<5	<5	<5
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		8	28	91	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		101	62	371	<5	11	10	<5	<5	<5	<5	<5	72	<5	<5	<5	<5
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	<1	3	8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	<5	18	121	<5	<5	<5	<5	<5	<5	<5	<5	512	<5	<5	<5	<5
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	<5	12	112	<5	<5	<5	<5	<5	<5	<5	<5	206	<5	<5	<5	<5
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	55	22	135	<5	18	<5	<5	<5	<5	<5	<5	55	<5	<5	<5	<5
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	7	21	20	<5	<5	<5	<5	<5	<5	<5	<5	18	<5	<5	<5	<5
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	12	<10	11	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		74	76	407	<10	18	<10	<10	<10	<10	<10	<10	791	<10	<10	<10	<10
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value															<10	<10	<10

Sample Reference				BH AB042	BH AB043	BH AB044	BH AB045	SW BH AB021	SW BH AB025	SW BH AB026	SW BH AB028	SW BH AB043	BH AB001	BH AB003	BH AB005	BH AB006	BHAB009	BH AB010	BH AB011	BH AB012	BH AB015
Depth (m)				11.00	12.50	2.00	2.50	0.00	0.00	0.00	0.00	0.00	0.5	1.2	1.5	0.5	0.5	0.5	0.5	0.5	0.5
Sample Type				Groundwater	Groundwater	Groundwater	Groundwater	Surface water	Surface water	Surface water	Surface water	Surface water	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				10-Jun-21	10-Jun-21	10-Jun-21	10-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	10-Jun-21	11/03/2021	12/03/2021	12/03/2021	17/03/2021	18/03/2021		31/03/2021	14/04/2021	06/04/2021
	Units	GAC	Source																		
General Inorganics																					
pH (w)	pH	>6.5 x <9.5	UK DWS	7.31	7.64	7.3	7.15	8.2	8.17	8.08	8.26	8.01	7.01	7.2	7.49	6.23	4.77	6.86	6.26	6.1	6.81
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	2480	1962	760	787	282	279	283	333	382	67	54	169	68	16	101	36	38	22
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		223	245	303	334					180									
Hardness Total	mg/l Ca CO3	No screening value		989	474	452	494					220									
Total Suspended Solids (w)	mg/l	No screening value		97	17	<10	44														
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS	0.07	0.07	0.1	0.03	0.04	0.04	0.06	0.04	0.12									
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value		0.00077	0.00152	0.0011	0.00026	0.00324	0.00324	0.00393	0.004	0.00634									
Chloride (w)	mg/l	250	UK DWS	708	515	7	5	9	27	11	7	12	4.57	2.56	3.34	7.2	4.24	37.25	16.36	11.86	5.45
Nitrite (w)	mg/l	0.5	UK DWS	<0.1	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.3									
Nitrate (w)	mg/l	50	UK DWS	<0.1	4.8	6.8	8.3	2	4.6	5.1	1.3	3.3									
Sulphate (w)	mg/l	250	UK DWS	49	53	85	98	15	15	16	21	16	1.95	5.05	1.49	24.02	10.6	<1	<1.00	8.08	5.76
Sulphide (w)	mg/l	No screening value		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1									
DOC (w)	mg/l	No screening value		0.7	5.6	2.5	1.8	0.8	1.5	0.5	1.1	1.1									
Phenols																					
Total Phenols	µg/l	7.7	Freshwater EQS										<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																		
PAHs																					
Naphthalene	µg/l	130	EQS	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Acenaphthylene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Acenaphthene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Fluorene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Phenanthrene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Anthracene	µg/l	0.1	EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Fluoranthene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Pyrene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Benzo(a)anthracene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Chrysene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Benzo(b)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Benzo(k)fluoranthene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Benzo(a)pyrene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Dibenz(a,h)anthracene	µg/l	0.01	LOD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Benzo(ghi)perylene*	µg/l	No screening value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Total PAH (sum of 16)	µg/l	0.1	UK DWS	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																		
Metals																					
Arsenic (dissolved)	µg/l	10	UK DWS	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	2	<1
Boron (dissolved)	µg/l	1000	UK DWS																		
Cadmium (dissolved)	µg/l	0.45	EQS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value		282	131	148	158	43	45	44	55	69									
Copper (dissolved)	µg/l	1	EQS	9	8	15	11	9	10	7	9	9	1	<1	1	6	7	7	5	55	6
Chromium (dissolved)	µg/l	50	UK DWS	<1	6	15	10	7	7	7	<1	6	<1	<1	<1	<1	<1	2	2	9	<1
Chromium (hexavalent) (w)	mg/l	3.4	EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Chromium (trivalent) (w)	mg/l	No screening value		<0.01	<0.01	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01									
Lead (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	8	3	7	5	71	8
Manganese (dissolved)	µg/l	50	UK DWS																		
Magnesium (dissolved)	mg/l	No screening value																			
Mercury (dissolved)	µg/l	0.07	EQS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD										<1	<1	3	<1	<1	2	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	6	9	2	1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	2	1	15	2
Potassium (dissolved)	mg/l	No screening value		6	9	5	<1	<1	4	2	<1	<1									
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5	<1
Sodium (dissolved)	mg/l	200	UK DWS	116	290	16	11	6	8	7	7	9									
Vanadium (dissolved)	µg/l	20	EQS																		
Zinc (dissolved)	µg/l	10.9	EQS	8	65	5	8	3	11	2	2	2	3	5	6	10	16	11	11	66	9
BTEX																					
Benzene	µg/l	1	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Toluene	µg/l	74	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
Ethylbenzene	µg/l	300	WHO DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
p & m-xylene	µg/l	30	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
o-xylene	µg/l	30	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		<1	<1	<1	<1	<1	<1	<1	<1	<1									
TPH																					
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	<5	<5	<5	<5	<5	<5	<5	<5	6									
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	<5	<5	<5	<5	<5	<5	<5	<5	<5									
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	<5	571	<5	<5	<5	<10	<5	<5	<5									
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		<5	12	<5	<5	<5	40	<5	<5	<5									
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		<5	<5	<5	<5	<5	17	<5	<5	<5									
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		<5	583	<5	<5	<5	66	<5	<5	6									
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1									
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	<5	<5	<5	<5	<5	<5	<5	<5	<5									
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	<5	8	<5	<5	<5	<5	<5	<5	<5									
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	<5	132	<5	<5	<5	6	<5	<5	<5									
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	10	18	<5	<5	<5	33	<5	<5	<5									
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	<10	<10	<10	<10	<10	<10	<10	<10	<10									
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		10	158	<10	<10	<10	39	<10	<10	<10									
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		10	741	<10	<10					<10									

Sample Reference				BH AB018	BH AB019	BH AB020	BH AB021	BH AB022	BH AB023	BH AB024	BH AB025	BH AB026	BH AB027	BH AB028	BH AB029	BH AB030	BH AB031	BH AB032	BH AB033	BH AB039	BH AB040
Depth (m)				0.3	0.5	0.5	1.2	0.5	0.5	0.5	0.2	1.2	0.5	0.2	0.5	0.3	0.2	0.5	0.5	1.2	0.5
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				23/03/2021	25/03/2021	26/03/2021	09/04/2021	08/04/2021	13/04/2021	13/04/2021	14/04/2021	06/04/2021	25/03/2021	26/03/2021	12/04/2021	13/04/2021	12/04/2021	12/04/2021	15/04/2021	07/04/2021	07/04/2021
	Units	GAC	Source																		
General Inorganics																					
pH (w)	pH	>6.5 x <9.5	UK DWS	5.76	5.26	6.7	6.11	6.08	6.03	6.38	5.05	6.93	5.84	5.95	6.8	7.4	6.09	6.16	6.26	6.8	5.69
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	38	55	154	22	17	20	21	17	55	39	58	69	185	41	28	74	49	394
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																			
Hardness Total	mg/l Ca CO3	No screening value																			
Total Suspended Solids (w)	mg/l	No screening value																			
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS																		
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																			
Chloride (w)	mg/l	250	UK DWS	7.29	14.53	6.57	15.95	3.5	2.16	2.77	1.83	13.32	2.94	3.58	20.14	15.28	3.15	16.17	11.8	2.94	4.93
Nitrite (w)	mg/l	0.5	UK DWS																		
Nitrate (w)	mg/l	50	UK DWS																		
Sulphate (w)	mg/l	250	UK DWS	32.5	12.04	6.63	2.96	6.99	3.87	3.4	2.15	52.1	<1.00	11.05	4.71	25.44	1.37	3.83	17.77	1.08	192.4
Sulphide (w)	mg/l	No screening value																			
DOC (w)	mg/l	No screening value																			
Phenols																					
Total Phenols	µg/l	7.7	Freshwater EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																		
PAHs																					
Naphthalene	µg/l	130	EQS																		
Acenaphthylene	µg/l	0.01	LOD																		
Acenaphthene	µg/l	0.01	LOD																		
Fluorene	µg/l	0.01	LOD																		
Phenanthrene	µg/l	0.01	LOD																		
Anthracene	µg/l	0.1	EQS																		
Fluoranthene	µg/l	0.01	LOD																		
Pyrene	µg/l	0.01	LOD																		
Benzo(a)anthracene	µg/l	0.01	LOD																		
Chrysene	µg/l	0.01	LOD																		
Benzo(b)fluoranthene*	µg/l	No screening value																			
Benzo(k)fluoranthene*	µg/l	No screening value																			
Benzo(a)pyrene	µg/l	0.01	LOD																		
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																			
Dibenz(a,h)anthracene	µg/l	0.01	LOD																		
Benzo(ghi)perylene*	µg/l	No screening value																			
Total PAH (sum of 16)	µg/l	0.1	UK DWS																		
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																		
Metals																					
Arsenic (dissolved)	µg/l	10	UK DWS	<1	5	1	<1	<1	4	<1	1	6	1	3	1	2	1	<1	3	2	5
Boron (dissolved)	µg/l	1000	UK DWS																		
Cadmium (dissolved)	µg/l	0.45	EQS	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1
Calcium (dissolved)	mg/l	No screening value																			
Copper (dissolved)	µg/l	1	EQS	16	49	9	8	14	24	34	12	10	28	13	10	8	32	50	16	23	2
Chromium (dissolved)	µg/l	50	UK DWS	1	11	1	<1	<1	6	<1	<1	<1	2	2	1	<1	<1	<1	3	<1	<1
Chromium (hexavalent) (w)	mg/l	3.4	EQS																		
Chromium (trivalent) (w)	mg/l	No screening value																			
Lead (dissolved)	µg/l	10	UK DWS	10	37	7	2	14	45	18	18	13	23	20	9	2	34	9	38	19	<1
Manganese (dissolved)	µg/l	50	UK DWS																		
Magnesium (dissolved)	mg/l	No screening value																			
Mercury (dissolved)	µg/l	0.07	EQS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	4	<1	<1	<1	<1	1
Nickel (dissolved)	µg/l	20	UK DWS	6	32	2	<1	3	9	6	4	3	8	2	1	4	4	2	2	15	2
Potassium (dissolved)	mg/l	No screening value																			
Selenium (dissolved)	µg/l	10	UK DWS	<1	3	<1	<1	<1	<1	1	1	<1	2	<1	<1	<1	<1	<1	1	1	<1
Sodium (dissolved)	mg/l	200	UK DWS																		
Vanadium (dissolved)	µg/l	20	EQS																		
Zinc (dissolved)	µg/l	10.9	EQS	9	33	30	5	13	31	13	20	7	39	33	11	15	68	17	23	13	11
BTEX																					
Benzene	µg/l	1	UK DWS																		
Toluene	µg/l	74	EQS																		
Ethylbenzene	µg/l	300	WHO DWS																		
p & m-xylene	µg/l	30	EQS																		
o-xylene	µg/l	30	EQS																		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																			
TPH																					
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS																		
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS																		
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS																		
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS																		
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS																		
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																			
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																			
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																			
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS																		
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS																		
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS																		
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS																		
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS																		
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS																		
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS																		
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																			
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																			

Sample Reference				BH AB041	BH AB042	BH AB043	BH AB044	BH AB045	BH AB046	BH AB047	BH AB048	TP AB001	TP AB002	TP AB003	TP AB004	TP AB005	TP AB007	TP AB009	TP AB011	TP AB012	TP AB014	TP AB015
Depth (m)				0.5	0.5	1.2	0.5	0.5	1	0.5	0.5	0.2	0.5	2.4	1	0.5	0.2	0.5	0.6	0.6	0.2	0.2
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				24/03/2021	01/04/2021	06/04/2021	31/03/2021	01/04/2021	16/04/2021	19/04/2021	21/04/2021	18/03/2021	22/04/2021	17/03/2021	21/04/2021	22/03/2021	15/03/2021	10/03/2021	18/03/2021	15/03/2021	06/04/2021	30/03/2021
	Units	GAC	Source																			
General Inorganics																						
pH (w)	pH	>6.5 x <9.5	UK DWS	6.69	6.63	6.33	6.68	7.12	6.96	6.49	6.56	6.7	5.47	6.33	7.96	6.69	5.7	6.69	7.07	6.96	6.9	6.02
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	34	45	70	63	92	61	31	94	99	14	52	156	118	251	91	290	266	33	33
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																				
Hardness Total	mg/l Ca CO3	No screening value																				
Total Suspended Solids (w)	mg/l	No screening value																				
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS																			
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																				
Chloride (w)	mg/l	250	UK DWS	6.19	16.18	4.35	21.43	8.13	10.33	7.38	5.2	16.16	<1.00	6.44	1.35	16.17	2.83	13.32	43.71	0.032	1.83	4.36
Nitrite (w)	mg/l	0.5	UK DWS																			
Nitrate (w)	mg/l	50	UK DWS																			
Sulphate (w)	mg/l	250	UK DWS	6.63	41.67	19.58	68.6	33.68	15.09	14.25	6.89	10.69	<1.00	1.43	4.16	<1.00	5.71	21.06	42.76	25.7	6.52	9.46
Sulphide (w)	mg/l	No screening value																				
DOC (w)	mg/l	No screening value																				
Phenols																						
Total Phenols	µg/l	7.7	Freshwater EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																			
PAHs																						
Naphthalene	µg/l	130	EQS																			
Acenaphthylene	µg/l	0.01	LOD																			
Acenaphthene	µg/l	0.01	LOD																			
Fluorene	µg/l	0.01	LOD																			
Phenanthrene	µg/l	0.01	LOD																			
Anthracene	µg/l	0.1	EQS																			
Fluoranthene	µg/l	0.01	LOD																			
Pyrene	µg/l	0.01	LOD																			
Benzo(a)anthracene	µg/l	0.01	LOD																			
Chrysene	µg/l	0.01	LOD																			
Benzo(b)fluoranthene*	µg/l	No screening value																				
Benzo(k)fluoranthene*	µg/l	No screening value																				
Benzo(a)pyrene	µg/l	0.01	LOD																			
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																				
Dibenz(a,h)anthracene	µg/l	0.01	LOD																			
Benzo(ghi)perylene*	µg/l	No screening value																				
Total PAH (sum of 16)	µg/l	0.1	UK DWS																			
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																			
Metals																						
Arsenic (dissolved)	µg/l	10	UK DWS	<1	<1	1	1	<1	2	1	2	4	3	<1	<1	19	4	1	3	32	<1	3
Boron (dissolved)	µg/l	1000	UK DWS																			
Cadmium (dissolved)	µg/l	0.45	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
Calcium (dissolved)	mg/l	No screening value																				
Copper (dissolved)	µg/l	1	EQS	3	12	6	7	6	33	26	25	11	21	2	7	16	11	3	2	25	3	5
Chromium (dissolved)	µg/l	50	UK DWS	<1	<1	<1	<1	<1	<1	<1	1	2	4	<1	<1	52	4	<1	7	68	<1	3
Chromium (hexavalent) (w)	mg/l	3.4	EQS																			
Chromium (trivalent) (w)	mg/l	No screening value																				
Lead (dissolved)	µg/l	10	UK DWS	6	12	6	7	4	25	13	81	27	61	1	2	37	8	3	15	41	6	34
Manganese (dissolved)	µg/l	50	UK DWS																			
Magnesium (dissolved)	mg/l	No screening value																				
Mercury (dissolved)	µg/l	0.07	EQS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3	<1	<1	<1	7	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	<1	3	2	1	<1	5	2	7	2	8	1	<1	26	3	1	5	32	1	2
Potassium (dissolved)	mg/l	No screening value																				
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	2	1	1	<1	2	<1	<1	2	<1	<1	<1	5	<1	<1
Sodium (dissolved)	mg/l	200	UK DWS																			
Vanadium (dissolved)	µg/l	20	EQS																			
Zinc (dissolved)	µg/l	10.9	EQS	8	13	5	61	7	16	8	38	19	33	5	6	52	15	7	12	43	15	29
BTEX																						
Benzene	µg/l	1	UK DWS																			
Toluene	µg/l	74	EQS																			
Ethylbenzene	µg/l	300	WHO DWS																			
p & m-xylene	µg/l	30	EQS																			
o-xylene	µg/l	30	EQS																			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																				
TPH																						
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS																			
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS																			
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																				
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																				
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																				
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS																			
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS																			
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS																			
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																				
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																				

Sample Reference				TP AB017	TP AB018	TP AB019	TP AB020	TP AB022	TP AB023	TP AB025	TP AB026	TP AB027	TP AB029	TP AB030	TP AB031	TP AB032	TP AB033	TP AB034	TP AB036	TP AB037	TP AB038	TP AB039
Depth (m)				1.5	1.5	0.5	0.5	1.2	0.6	0.6	0.2	0.2	0.2	0.2	1.2	0.5	0.6	0.3	0.2	1.5	1.2	1.2
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				10/03/2021	01/04/2021	24/03/2021	25/03/2021	25/03/2021	08/04/2021	14/04/2021	08/04/2021	23/03/2021		25/03/2021			25/03/2021	31/03/2021	31/03/2021		23/03/2021	31/03/2021
	Units	GAC	Source																			
General Inorganics																						
pH (w)	pH	>6.5 x <9.5	UK DWS	5.99	6.65	5.8	5.89	6.08	6.42	7.13	6.43	6.11	6.48	6.83	6.35	6.47	6.34	6.98	7.49	6.95	6.89	6.44
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	33	24	25	27	79	53	190	148	118	65	272	33	56	52	118	93	43	93	46
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																				
Hardness Total	mg/l Ca CO3	No screening value																				
Total Suspended Solids (w)	mg/l	No screening value																				
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS																			
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																				
Chloride (w)	mg/l	250	UK DWS	23.36	7.54	10.83	12.1	4.79	9.4	18.94	6.14	2.82	7.43	4.73	4.76	10.81	8.82	1.84	1.21	20.11	4.31	15.93
Nitrite (w)	mg/l	0.5	UK DWS																			
Nitrate (w)	mg/l	50	UK DWS																			
Sulphate (w)	mg/l	250	UK DWS	<1.00	19.63	<0.001	22.83	2.13	8.87	12	8.57	<1.00	8.88	<1.00	11.54	12.1	10.51	10.44	3.73	<1.00	8.27	30.66
Sulphide (w)	mg/l	No screening value																				
DOC (w)	mg/l	No screening value																				
Phenols																						
Total Phenols	µg/l	7.7	Freshwater EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																			
PAHs																						
Naphthalene	µg/l	130	EQS																			
Acenaphthylene	µg/l	0.01	LOD																			
Acenaphthene	µg/l	0.01	LOD																			
Fluorene	µg/l	0.01	LOD																			
Phenanthrene	µg/l	0.01	LOD																			
Anthracene	µg/l	0.1	EQS																			
Fluoranthene	µg/l	0.01	LOD																			
Pyrene	µg/l	0.01	LOD																			
Benzo(a)anthracene	µg/l	0.01	LOD																			
Chrysene	µg/l	0.01	LOD																			
Benzo(b)fluoranthene*	µg/l	No screening value																				
Benzo(k)fluoranthene*	µg/l	No screening value																				
Benzo(a)pyrene	µg/l	0.01	LOD																			
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																				
Dibenz(a,h)anthracene	µg/l	0.01	LOD																			
Benzo(ghi)perylene*	µg/l	No screening value																				
Total PAH (sum of 16)	µg/l	0.1	UK DWS																			
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																			
Metals																						
Arsenic (dissolved)	µg/l	10	UK DWS	5	<1	3	<1	<1	<1	2	2	4	1	4	2	1	2	<1	3	<1	<1	2
Boron (dissolved)	µg/l	1000	UK DWS																			
Cadmium (dissolved)	µg/l	0.45	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value																				
Copper (dissolved)	µg/l	1	EQS	11	5	11	15	7	6	12	15	3	9	16	5	8	13	3	12	10	5	13
Chromium (dissolved)	µg/l	50	UK DWS	9	<1	8	3	<1	<1	<1	<1	3	<1	3	1	4	10	1	<1	2	<1	2
Chromium (hexavalent) (w)	mg/l	3.4	EQS																			
Chromium (trivalent) (w)	mg/l	No screening value																				
Lead (dissolved)	µg/l	10	UK DWS	9	2	12	16	1	5	12	12	18	10	42	7	10	15	1	1	11	2	8
Manganese (dissolved)	µg/l	50	UK DWS																			
Magnesium (dissolved)	mg/l	No screening value																				
Mercury (dissolved)	µg/l	0.07	EQS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	3	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	3	<1	2	3	<1	1	1	2	4	3	3	<1	2	4	<1	<1	2	<1	5
Potassium (dissolved)	mg/l	No screening value																				
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1
Sodium (dissolved)	mg/l	200	UK DWS																			
Vanadium (dissolved)	µg/l	20	EQS																			
Zinc (dissolved)	µg/l	10.9	EQS	7	4	16	17	10	17	9	23	48	33	22	5	16	33	3	1	10	8	19
BTEX																						
Benzene	µg/l	1	UK DWS																			
Toluene	µg/l	74	EQS																			
Ethylbenzene	µg/l	300	WHO DWS																			
p & m-xylene	µg/l	30	EQS																			
o-xylene	µg/l	30	EQS																			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																				
TPH																						
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS																			
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS																			
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																				
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																				
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																				
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS																			
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS																			
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS																			
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																				
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																				

Sample Reference				TP AB040	TP AB041	TP AB042	TP AB044	TP AB045	TP AB046	TP AB047	TP AB048	TP AB049	TP AB050	TP AB051	TP AB052	TP AB053	TP AB054	TP AB055	TP AB056	TP AB057	TP AB059	WS AB007
Depth (m)				1	0.6	0.2	0.7	1	0.5	1.5	1	0.2	0.6	0.6	1.2	1.5	0.2	0.2	0.5	1.5	0.5	1
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				31/03/2021	30/03/2021	31/03/2021	13/04/2021	13/04/2021	14/04/2021	13/04/2021	14/04/2021	14/04/2021	12/04/2021	12/04/2021	06/04/2021	12/04/2021	12/04/2021	12/04/2021	08/04/2021	22/04/2021	21/04/2021	30/03/2021
	Units	GAC	Source																			
General Inorganics																						
pH (w)	pH	>6.5 x <9.5	UK DWS	6.94	6.28	6.17	5.68	5.36	6.79	5.43	6.6	6.29	5.84	6.41	7.24	6.42	6.25	6.47	6.68	7.26	7.38	6.34
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	87	32	46	37	28	41	29	44	56	43	45	163	57	50	121	83	64	72	27
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																				
Hardness Total	mg/l Ca CO3	No screening value																				
Total Suspended Solids (w)	mg/l	No screening value																				
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS																			
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																				
Chloride (w)	mg/l	250	UK DWS	4.57	21.98	6.86	6.01	7.59	<1.00	5.75	2.47	7	5.23	7.08	9.2	3.24	16.87	10.85	19.33	<1.00	7.2	9.59
Nitrite (w)	mg/l	0.5	UK DWS																			
Nitrate (w)	mg/l	50	UK DWS																			
Sulphate (w)	mg/l	250	UK DWS	14.49	<1.00	18.82	15.92	32.56	<1.00	<1.00	7.09	34.7	<1.00	9.08	35.29	<1.00	<1.00	23.6	14.5	11.02	1.44	<1.00
Sulphide (w)	mg/l	No screening value																				
DOC (w)	mg/l	No screening value																				
Phenols																						
Total Phenols	µg/l	7.7	Freshwater EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																			
PAHs																						
Naphthalene	µg/l	130	EQS																			
Acenaphthylene	µg/l	0.01	LOD																			
Acenaphthene	µg/l	0.01	LOD																			
Fluorene	µg/l	0.01	LOD																			
Phenanthrene	µg/l	0.01	LOD																			
Anthracene	µg/l	0.1	EQS																			
Fluoranthene	µg/l	0.01	LOD																			
Pyrene	µg/l	0.01	LOD																			
Benzo(a)anthracene	µg/l	0.01	LOD																			
Chrysene	µg/l	0.01	LOD																			
Benzo(b)fluoranthene*	µg/l	No screening value																				
Benzo(k)fluoranthene*	µg/l	No screening value																				
Benzo(a)pyrene	µg/l	0.01	LOD																			
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																				
Dibenz(a,h)anthracene	µg/l	0.01	LOD																			
Benzo(ghi)perylene*	µg/l	No screening value																				
Total PAH (sum of 16)	µg/l	0.1	UK DWS																			
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																			
Metals																						
Arsenic (dissolved)	µg/l	10	UK DWS	<1	3	2	2	1	3	1	2	8	1	<1	19	3	2	12	<1	1	2	<1
Boron (dissolved)	µg/l	1000	UK DWS																			
Cadmium (dissolved)	µg/l	0.45	EQS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value																				
Copper (dissolved)	µg/l	1	EQS	4	10	7	13	10	18	16	24	27	17	12	20	23	14	15	7	16	41	8
Chromium (dissolved)	µg/l	50	UK DWS	<1	2	<1	3	3	2	2	2	3	1	<1	1	<1	<1	1	<1	<1	1	<1
Chromium (hexavalent) (w)	mg/l	3.4	EQS																			
Chromium (trivalent) (w)	mg/l	No screening value																				
Lead (dissolved)	µg/l	10	UK DWS	4	11	14	8	17	18	6	18	42	14	8	19	5	25	52	11	10	51	3
Manganese (dissolved)	µg/l	50	UK DWS																			
Magnesium (dissolved)	mg/l	No screening value																				
Mercury (dissolved)	µg/l	0.07	EQS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	14	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	1	1	2	5	3	2	5	3	2	3	1	6	3	3	3	1	6	13	<1
Potassium (dissolved)	mg/l	No screening value																				
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	5	<1	4	<1	3	<1	4	2	<1	<1	<1	1	4	<1
Sodium (dissolved)	mg/l	200	UK DWS																			
Vanadium (dissolved)	µg/l	20	EQS																			
Zinc (dissolved)	µg/l	10.9	EQS	12	10	15	22	39	29	37	19	43	25	18	9	26	35	108	8	18	20	4
BTEX																						
Benzene	µg/l	1	UK DWS																			
Toluene	µg/l	74	EQS																			
Ethylbenzene	µg/l	300	WHO DWS																			
p & m-xylene	µg/l	30	EQS																			
o-xylene	µg/l	30	EQS																			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																				
TPH																						
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS																			
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS																			
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS																			
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																				
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																				
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																				
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS																			
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS																			
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS																			
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS																			
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																				
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																				

Sample Reference				TP AB borrowpit01	TP AB borrowpit02	TP AB borrowpit03	TP AB borrowpit04
Depth (m)				0.2	0.5	0.75	0.5
Sample Type				Leachate	Leachate	Leachate	Leachate
Date Sampled				21/04/2021	21/04/2021	21/04/2021	21/04/2021
	Units	GAC	Source				
General Inorganics							
pH (w)	pH	>6.5 x <9.5	UK DWS	6.54	6.36	6.14	6
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	39	29	21	27
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value					
Hardness Total	mg/l Ca CO3	No screening value					
Total Suspended Solids (w)	mg/l	No screening value					
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS				
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value					
Chloride (w)	mg/l	250	UK DWS	2.43	8.28	6.75	25.82
Nitrite (w)	mg/l	0.5	UK DWS				
Nitrate (w)	mg/l	50	UK DWS				
Sulphate (w)	mg/l	250	UK DWS	8.85	10.73	3.72	103.58
Sulphide (w)	mg/l	No screening value					
DOC (w)	mg/l	No screening value					
Phenols							
Total Phenols	µg/l	7.7	Freshwater EQS	0.02	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS				
PAHs							
Naphthalene	µg/l	130	EQS				
Acenaphthylene	µg/l	0.01	LOD				
Acenaphthene	µg/l	0.01	LOD				
Fluorene	µg/l	0.01	LOD				
Phenanthrene	µg/l	0.01	LOD				
Anthracene	µg/l	0.1	EQS				
Fluoranthene	µg/l	0.01	LOD				
Pyrene	µg/l	0.01	LOD				
Benzo(a)anthracene	µg/l	0.01	LOD				
Chrysene	µg/l	0.01	LOD				
Benzo(b)fluoranthene*	µg/l	No screening value					
Benzo(k)fluoranthene*	µg/l	No screening value					
Benzo(a)pyrene	µg/l	0.01	LOD				
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value					
Dibenz(a,h)anthracene	µg/l	0.01	LOD				
Benzo(ghi)perylene*	µg/l	No screening value					
Total PAH (sum of 16)	µg/l	0.1	UK DWS				
Total PAH (sum of 4*)	µg/l	0.1	UK DWS				
Metals							
Arsenic (dissolved)	µg/l	10	UK DWS	2	2	2	<1
Boron (dissolved)	µg/l	1000	UK DWS				
Cadmium (dissolved)	µg/l	0.45	EQS	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value					
Copper (dissolved)	µg/l	1	EQS	7	11	6	6
Chromium (dissolved)	µg/l	50	UK DWS	2	3	3	<1
Chromium (hexavalent) (w)	mg/l	3.4	EQS				
Chromium (trivalent) (w)	mg/l	No screening value					
Lead (dissolved)	µg/l	10	UK DWS	32	10	3	7
Manganese (dissolved)	µg/l	50	UK DWS				
Magnesium (dissolved)	mg/l	No screening value					
Mercury (dissolved)	µg/l	0.07	EQS	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	2	4	2	2
Potassium (dissolved)	mg/l	No screening value					
Selenium (dissolved)	µg/l	10	UK DWS	<1	1	<1	<1
Sodium (dissolved)	mg/l	200	UK DWS				
Vanadium (dissolved)	µg/l	20	EQS				
Zinc (dissolved)	µg/l	10.9	EQS	19	21	25	6
BTEX							
Benzene	µg/l	1	UK DWS				
Toluene	µg/l	74	EQS				
Ethylbenzene	µg/l	300	WHO DWS				
p & m-xylene	µg/l	30	EQS				
o-xylene	µg/l	30	EQS				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value					
TPH							
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS				
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS				
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS				
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS				
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS				
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value					
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value					
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value					
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS				
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS				
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS				
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS				
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS				
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS				
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS				
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value					
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value					

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A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D5.3 - AB T1 WQS CWRA Failures

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D5.3 - AB T1 WQS CWRA Failures
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000029

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination				
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Reference					BH AB027	BH AB028	BH AB012	BH AB018	BH AB022	BH AB023	BH AB024	BH AB027	BH AB028	BH AB047	BH AB048	TP AB031	TP AB057	TP AB059
Depth (m)					14.00	3.00	0.5	0.3	0.5	0.5	0.5	0.5	0.2	0.5	0.5	1.2	1.5	0.5
Sample Type					Groundwater	Groundwater	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled					09-Jun-21	09-Jun-21	14/04/2021	23/03/2021	08/04/2021	13/04/2021	13/04/2021	25/03/2021	26/03/2021	19/04/2021	21/04/2021		22/04/2021	21/04/2021
	Units	GAC	Source															
General Inorganics																		
pH (w)	pH	>6.5 x <9.5	UK DWS		12.99	7.71	6.1	5.76	6.08	6.03	6.38	5.84	5.95	6.49	6.56	6.35	7.26	7.38
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	1	2700	1354	38	38	17	20	21	39	58	31	94	33	64	72
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		0	422	151												
Hardness Total	mg/l Ca CO3	No screening value		0	216	219												
Total Suspended Solids (w)	mg/l	No screening value		0	<10	64												
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS	1	0.44	0.02												
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value		0	0.43956	0.00054												
Chloride (w)	mg/l	250	UK DWS	1	17	354	11.86	7.29	3.5	2.16	2.77	2.94	3.58	7.38	5.2	4.76	<1.00	7.2
Nitrite (w)	mg/l	0.5	UK DWS	0	<0.1	<0.1												
Nitrate (w)	mg/l	50	UK DWS	0	0.3	10.5												
Sulphate (w)	mg/l	250	UK DWS	0	28	24	8.08	32.5	6.99	3.87	3.4	<1.00	11.05	14.25	6.89	11.54	11.02	1.44
Sulphide (w)	mg/l	No screening value		0	<0.1	<0.1												
DOC (w)	mg/l	No screening value		0	119	2.1												
Phenols																		
Total Phenols	µg/l	7.7	Freshwater EQS	0			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS	0														
PAHs																		
Naphthalene	µg/l	130	EQS	0	0.05	<0.01												
Acenaphthylene	µg/l	0.01	LOD	0	<0.01	<0.01												
Acenaphthene	µg/l	0.01	LOD	0	<0.01	<0.01												
Fluorene	µg/l	0.01	LOD	0	0.01	<0.01												
Phenanthrene	µg/l	0.01	LOD	0	<0.01	<0.01												
Anthracene	µg/l	0.1	EQS	0	<0.01	<0.01												
Fluoranthene	µg/l	0.01	LOD	0	<0.01	<0.01												
Pyrene	µg/l	0.01	LOD	0	<0.01	<0.01												
Benzo(a)anthracene	µg/l	0.01	LOD	0	<0.01	<0.01												
Chrysene	µg/l	0.01	LOD	0	<0.01	<0.01												
Benzo(b)fluoranthene*	µg/l	No screening value		0	<0.01	<0.01												
Benzo(k)fluoranthene*	µg/l	No screening value		0	<0.01	<0.01												
Benzo(a)pyrene	µg/l	0.01	LOD	0	<0.01	<0.01												
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		0	<0.01	<0.01												
Dibenz(a,h)anthracene	µg/l	0.01	LOD	0	<0.01	<0.01												
Benzo(ghi)perylene*	µg/l	No screening value		0	<0.01	<0.01												
Total PAH (sum of 16)	µg/l	0.1	UK DWS	0	0.06	<0.01												
Total PAH (sum of 4*)	µg/l	0.1	UK DWS	0														
Metals																		
Arsenic (dissolved)	µg/l	10	UK DWS	0	<1	<1	2	<1	<1	4	<1	1	3	1	2	2	1	2
Boron (dissolved)	µg/l	1000	UK DWS	0														
Cadmium (dissolved)	µg/l	0.45	EQS	0	<0.2	<0.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value		0	87	78												
Copper (dissolved)	µg/l	1	EQS	14	17	9	55	16	14	24	34	28	13	26	25	5	16	41
Chromium (dissolved)	µg/l	50	UK DWS	0	3	<1	9	1	<1	6	<1	2	2	<1	1	1	<1	1
Chromium (hexavalent) (w)	mg/l	3.4	EQS	0	<0.01	<0.01												
Chromium (trivalent) (w)	mg/l	No screening value		0	<0.01	<0.01												
Lead (dissolved)	µg/l	10	UK DWS	9	1	<1	71	10	14	45	18	23	20	13	81	7	10	51
Manganese (dissolved)	µg/l	50	UK DWS	0														
Magnesium (dissolved)	mg/l	No screening value		0														
Mercury (dissolved)	µg/l	0.07	EQS	0	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	0.5	LOD	0			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	0	2	<1	15	6	3	9	6	8	2	2	7	<1	6	13
Potassium (dissolved)	mg/l	No screening value		0	24	7												
Selenium (dissolved)	µg/l	10	UK DWS	0	<1	<1	5	<1	<1	<1	1	2	<1	1	1	1	1	4
Sodium (dissolved)	mg/l	200	UK DWS	2	246	231												
Vanadium (dissolved)	µg/l	20	EQS	0														
Zinc (dissolved)	µg/l	10.9	EQS	9	1	2	66	9	13	31	13	39	33	8	38	5	18	20
BTEX																		
Benzene	µg/l	1	UK DWS	0	<1	<1												
Toluene	µg/l	74	EQS	0	<1	<1												
Ethylbenzene	µg/l	300	WHO DWS	0	<1	<1												
p & m-xylene	µg/l	30	EQS	0	<1	<1												
o-xylene	µg/l	30	EQS	0	<1	<1												
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		0	<1	<1												
TPH																		
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	0	<1	<1												
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	0	4	<1												
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	0	32	<5												
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	0	15	<5												
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	0	15	<5												
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		0	6	<5												
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		0	<5	<5												
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		0	72	<5												
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	0	<1	<1												
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	0	<1	<1												
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	1	512	<5												
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	1	206	<5												
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	0	55	<5												
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	0	18	<5												
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	0	<10	<10												
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		0	791	<10												
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		0														

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A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D5.4 - AB WQS Evaluation

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D5.4 - AB WQS Evaluation
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000027

Rev	Suit. Code	Suitability		Purpose of Issue		
P02	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination		First Issue		
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	10/12/21	10/12/21	13/12/21	14/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Location	Sample Type	Depth	DWS Evaluation	EQS Evaluation	Applicable WQS	Progress to Tier 2 Assessment?
BH AB001	groundwater	3.90	principal bedrock aquifer	nr Ketland Moor approx 720m NE of Mire Sike watercourse, River Eden not much further.	DWS	Yes
	leachate	0.5				
BH AB008 (deep)	groundwater	3.70	principal bedrock aquifer	300m north of Mire Sike watercourse, 2 ponds closer	DWS	Yes
BH AB008 (shallow)	groundwater	5.20				
BH AB009 (deep)	groundwater	11.00	principal bedrock aquifer	400m from Mire Sike	DWS	Yes
BH AB009 (shallow)	groundwater	12.50				
BHAB009	leachate	0.5				
BH AB010 (deep)	groundwater	2.00	principal bedrock aquifer	350m north of Mire Sike	DWS	Yes
BH AB010 (shallow)	groundwater	2.50				
BH AB010	leachate	0.5				
BH AB011	groundwater	7.50	principal bedrock aquifer	500m north of Mire Sike	DWS	Yes
BH AB011	leachate	0.5				
BH AB020	groundwater	3.50	principal bedrock aquifer	approx. 180m west of Mill Lades watercourse	DWS	Yes
BH AB020	leachate	0.5				
BH AB025	groundwater	12.00	principal bedrock aquifer	100m north of Moor Beck	DWS	Yes
BH AB025	leachate	0.2				
BH AB026	groundwater	6.00	principal bedrock aquifer	70m north of Moor Beck	DWS	Yes
BH AB026	leachate	1.2				
BH AB027	**groundwater**	**15.00**	**principal bedrock aquifer**	**10m from Crooks Beck/Eastfield Sike**	**DWS & EQS**	**No**
BH AB027	**leachate**	**0.5**				
BH AB028	**groundwater**	**6.00**	**principal bedrock aquifer**	**45m from Crooks Beck/Eastfield Sike**	**DWS & EQS**	**No**
BH AB028	**leachate**	**0.2**				
BH AB031	groundwater	12.50	principal bedrock aquifer	250m north of Lowgill Beck	DWS	Yes
BH AB031	leachate	0.2				
BH AB032	groundwater	6.00	principal bedrock aquifer	171m north of Lowgill Beck	DWS	Yes
BH AB032	leachate	0.5				
BH AB033	groundwater	3.60	principal bedrock aquifer	200m north of Lowgill Beck	DWS	Yes
BH AB033	leachate	0.5				
BH AB042	groundwater	3.00	principal bedrock aquifer	190m north of Lowgill Beck	DWS	Yes
BH AB042	leachate	0.5				
BH AB043	groundwater	1.50	principal bedrock aquifer	180m north of Lowgill Beck	DWS	Yes
BH AB043	leachate	1.2				
BH AB044	groundwater	14.00	principal bedrock aquifer	200m north of Lowgill Beck	DWS	Yes
BH AB044	leachate	0.5				
BH AB045	groundwater	3.00	principal bedrock aquifer	100m north of Lowgill Beck	DWS	Yes
BH AB045	leachate	0.5				
SW BH AB021	surface water	0.00	N/A	in surface water	EQS	Yes
SW BH AB025	surface water	0.00	N/A	in surface water	EQS	Yes
SW BH AB026	surface water	0.00	N/A	in surface water	EQS	Yes
SW BH AB028	surface water	0.00	N/A	in surface water	EQS	Yes
SW BH AB043	surface water	0.00	N/A	in surface water	EQS	Yes
BH AB001	leachate	1.2	principal bedrock aquifer	730m north east Mire Sike	DWS	**No**
BH AB003	leachate	1.2	principal bedrock aquifer	730m north east Mire Sike	DWS	**No**
BH AB005	leachate	1.5	principal bedrock aquifer	570m north Mire Sike	DWS	Yes
BH AB006	leachate	0.5	principal bedrock aquifer	500m north Mire Sike	DWS	Yes
BH AB012	**leachate**	**0.5**	**principal bedrock aquifer**	**25m east Mire Sike**	**DWS & EQS**	**No**
BH AB015	leachate	0.5	principal bedrock aquifer	200m north Cringle Beck	DWS	Yes
BH AB018	**leachate**	**0.3**	**principal bedrock aquifer**	**10m east Cringle Beck**	**DWS & EQS**	**No**
BH AB019	leachate	0.5	principal bedrock aquifer	70m east Cringle Beck	DWS	Yes
BH AB021	leachate	1.2	principal bedrock aquifer	100m west Hayber Beck	DWS	Yes
BH AB022	**leachate**	**0.5**	**principal bedrock aquifer**	**10m east Hayber Beck**	**DWS & EQS**	**No**
BH AB023	**leachate**	**0.5**	**principal bedrock aquifer**	**40m west Hayber Beck**	**DWS & EQS**	**No**
BH AB024	**leachate**	**0.5**	**principal bedrock aquifer**	**50m east Hayber Beck**	**DWS & EQS**	**No**
BH AB029	leachate	0.5	principal bedrock aquifer	300m north Lowgill Beck	DWS	Yes
BH AB030	leachate	0.3	principal bedrock aquifer	300m north Lowgill Beck	DWS	Yes
BH AB039	leachate	1.2	principal bedrock aquifer	150m north Lowgill Beck	DWS	Yes
BH AB040	leachate	0.5	principal bedrock aquifer	150m north Lowgill Beck	DWS	Yes
BH AB041	leachate	0.5	principal bedrock aquifer	100m north Lowgill Beck	DWS	Yes
BH AB046	leachate	1	principal bedrock aquifer	100m north Lowgill Beck	DWS	Yes
BH AB047	**leachate**	**0.5**	**principal bedrock aquifer**	**40m north Lowgill Beck**	**DWS & EQS**	**No**
BH AB048	**leachate**	**0.5**	**principal bedrock aquifer**	**10m north Lowgill Beck**	**DWS & EQS**	**No**
WS AB007	leachate	1	principal bedrock aquifer	500m north Mire Sike	DWS	Yes
TP AB001	leachate	0.2	principal bedrock aquifer	650m north Mire Sike	DWS	Yes
TP AB002	leachate	0.5	principal bedrock aquifer	730m north east River Eden	DWS	Yes
TP AB003	leachate	2.4	principal bedrock aquifer	730m north east River Eden	DWS	Yes
TP AB004	leachate	1	principal bedrock aquifer	500m east River Eden	DWS	Yes
TP AB005	leachate	0.5	principal bedrock aquifer	500m north Mire Sike	DWS	Yes
TP AB007	leachate	0.2	principal bedrock aquifer	190m north/west Mire Sike	DWS	Yes
TP AB009	leachate	0.5	principal bedrock aquifer	500m north Mire Sike	DWS	Yes
TP AB011	leachate	0.6	principal bedrock aquifer	500m north Mire Sike	DWS	Yes
TP AB012	leachate	0.6	principal bedrock aquifer	500m north Mire Sike	DWS	Yes
TP AB014	leachate	0.2	principal bedrock aquifer	145m west Mire Sike	DWS	Yes
TP AB015	leachate	0.2	principal bedrock aquifer	60m west Mire Sike	DWS	Yes
TP AB017	leachate	1.5	principal bedrock aquifer	145m west Mire Sike	DWS	Yes
TP AB018	leachate	1.5	principal bedrock aquifer	145m west Mire Sike	DWS	Yes
TP AB019	leachate	0.5	principal bedrock aquifer	60m west Mire Sike	DWS	Yes
TP AB020	leachate	0.5	principal bedrock aquifer	60m west Mire Sike	DWS	Yes
TP AB022	leachate	1.2	principal bedrock aquifer	250m east Cringle Beck	DWS	Yes
TP AB023	leachate	0.6	principal bedrock aquifer	120m west Hayber Beck	DWS	Yes
TP AB025	leachate	0.6	principal bedrock aquifer	150m west Hayber Beck	DWS	Yes
TP AB026	leachate	0.2	principal bedrock aquifer	100m west Hayber Beck	DWS	Yes
TP AB027	leachate	0.2	principal bedrock aquifer	180m east Hayber Beck / Crooks Beck	DWS	Yes
TP AB029	leachate	0.2	principal bedrock aquifer	125m north Hayber Beck / Crooks Beck	DWS	Yes
TP AB030	leachate	0.2	principal bedrock aquifer	125m north Hayber Beck / Crooks Beck	DWS	Yes
TP AB031	**leachate**	**1.2**	**principal bedrock aquifer**	**46m south Crooks Burn**	**DWS & EQS**	**No**
TP AB032	leachate	0.5	principal bedrock aquifer	230m east Crooks Beck	DWS	Yes
TP AB033	leachate	0.6	principal bedrock aquifer	230m east Crooks Beck	DWS	Yes
TP AB034	leachate	0.3	principal bedrock aquifer	200m east Crooks Beck	DWS	Yes
TP AB036	leachate	0.2	principal bedrock aquifer	310m north Lowgill Beck	DWS	Yes
TP AB037	leachate	1.5	principal bedrock aquifer	340m north Lowgill Beck	DWS	Yes
TP AB038	leachate	1.2	principal bedrock aquifer	250m north Lowgill Beck	DWS	Yes
TP AB039	leachate	1.2	principal bedrock aquifer	60m north Lowgill Beck	DWS	Yes
TP AB040	leachate	1	principal bedrock aquifer	60m north Lowgill Beck	DWS	Yes
TP AB041	leachate	0.6	principal bedrock aquifer	150m north Lowgill Beck	DWS	Yes
TP AB042	leachate	0.2	principal bedrock aquifer	200m north Lowgill Beck	DWS	Yes
TP AB044	leachate	0.7	principal bedrock aquifer	150m north Lowgill Beck	DWS	Yes
TP AB045	leachate	1	principal bedrock aquifer	60m north Lowgill Beck	DWS	Yes
TP AB046	leachate	0.5	principal bedrock aquifer	250m north Lowgill Beck	DWS	Yes
TP AB047	leachate	1.5	principal bedrock aquifer	60m north Lowgill Beck	DWS	Yes
TP AB048	leachate	1	principal bedrock aquifer	200m north Lowgill Beck	DWS	Yes
TP AB049	leachate	0.2	principal bedrock aquifer	250m north Lowgill Beck	DWS	Yes
TP AB050	leachate	0.6	principal bedrock aquifer	170m east Lowgill Beck	DWS	Yes
TP AB051	leachate	0.6	principal bedrock aquifer	100m east Lowgill Beck	DWS	Yes
TP AB052	leachate	1.2	principal bedrock aquifer	70m north Lowgill Beck	DWS	Yes
TP AB053	leachate	1.5	principal bedrock aquifer	140m north Lowgill Beck	DWS	Yes
TP AB054	leachate	0.2	principal bedrock aquifer	100m north Lowgill Beck	DWS	Yes
TP AB055	leachate	0.2	principal bedrock aquifer	200m north Lowgill Beck	DWS	Yes
TP AB056	leachate	0.5	principal bedrock aquifer	200m north Lowgill Beck	DWS	Yes
TP AB057	**leachate**	**1.5**	**principal bedrock aquifer**	**30m south Lowgill Beck**	**DWS & EQS**	**No**
TP AB059	**leachate**	**0.5**	**principal bedrock aquifer**	**30m north Lowgill Beck**	**DWS & EQS**	**No**
TP AB borrowpit01	leachate	0.2	principal bedrock aquifer	810m north River Eden	DWS	Yes
TP AB borrowpit02	leachate	0.5	principal bedrock aquifer	939m north River Eden	DWS	Yes
TP AB borrowpit03	leachate	0.75	principal bedrock aquifer	840m south Lycum Beck	DWS	Yes
TP AB borrowpit04	leachate	0.5	principal bedrock aquifer	920m south Lycum Beck	DWS	Yes

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D5.5 - AB T2 DWS CWRA

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D5.5 - AB T2 DWS CWRA
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000039

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination				
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Reference					BH AB001	BH AB008	BH AB008	BH AB009	BH AB009	BH AB010	BH AB010	BH AB011	BH AB020	BH AB025	BH AB026	BH AB031	BH AB032	BH AB033	BH AB042	BH AB043	BH AB044	BH AB045	BH AB005
Depth (m)					7.50	3.50	12.00	6.00	15.00	6.00	12.50	6.00	3.60	3.00	1.50	3.90	3.70	5.20	11.00	12.50	2.00	2.50	1.5
Sample Type					Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Leachate
Date Sampled					09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	09-Jun-21	10-Jun-21	10-Jun-21	10-Jun-21	10-Jun-21	10-Jun-21	10-Jun-21	10-Jun-21	12/03/2021
	Units	GAC	Source																				
General Inorganics																							
pH (w)	pH	>6.5 x <9.5	UK DWS		7.34	7.7	13.18	8.25	8.18	7.97	8.06	7.79	7.45	7.26	7.45	8.03	7.78	7.05	7.31	7.64	7.3	7.15	7.49
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	2	498.0	461	3220	2590	714	651	606	320	810	391	1493	680	642	1713	2480	1962	760	787	169
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value		0	201	225	582	230	139	282	203	128	344	225	281	219	256	354	223	245	303	334	
Hardness Total	mg/l Ca CO3	No screening value		0	207	185	707	347	193	305	244	167	457	185	360	323	347	990	989	474	452	494	
Total Suspended Solids (w)	mg/l	No screening value		0	<10	<10	49	<10	<10	219	<10	72	73	217	65	46	<10	33	97	17	<10	44	
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS	0	0.1	0.24	0.42	0.06	0.05	0.37	0.02	0.08	0.02	0.04	0.15	0.05	0.12	0.19	0.07	0.07	0.1	0.03	
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value		0	0.0011	0.00653	0.41958	0.006	0.00406	0.01954	0.00131	0.00271	0.00035	0.00044	0.0026	0.00264	0.00407	0.00133	0.00077	0.00152	0.0011	0.00026	
Chloride (w)	mg/l	250	UK DWS	4	39	27	35	687	133	55	76	13	40	11	372	46	27	170	708	515	7	5	3.34
Nitrite (w)	mg/l	0.5	UK DWS	2	0.3	<0.1	<0.1	<0.1	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.3	6.7	<0.1	0.2	0.3	<0.1	
Nitrate (w)	mg/l	50	UK DWS	2	21.5	<0.1	<0.1	37.6	21.8	<0.1	35.3	26.1	28.4	<0.1	0.3	34.1	64.5	228	<0.1	4.8	6.8	8.3	
Sulphate (w)	mg/l	250	UK DWS	0	9	25	40	84	34	22	21	18	88	1	20	86	23	203	49	53	85	98	1.49
Sulphide (w)	mg/l	No screening value		0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
DOC (w)	mg/l	No screening value		0	1.3	<0.2	<0.2	3.7	3.3	16.3	0.7	2.5	1	3.5	2.7	1.6	1.5	5.5	0.7	5.6	2.5	1.8	
Phenols																							
Total Phenols	µg/l	7.7	Freshwater EQS	0																			<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS	0																			
PAHs																							
Naphthalene	µg/l	No screening value		0	<0.01	0.07	0.33	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01	<0.01	<0.01	0.02	0.08	<0.01	<0.01	
Acenaphthylene	µg/l	No screening value		0	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Acenaphthene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Fluorene	µg/l	No screening value		0	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Phenanthrene	µg/l	No screening value		0	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Anthracene	µg/l	0.1	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Fluoranthene	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Pyrene	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Benzo(a)anthracene	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Chrysene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Benzo(b)fluoranthene*	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Benzo(k)fluoranthene*	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Benzo(a)pyrene	µg/l	0.01	UK DWS	0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Dibenz(a,h)anthracene	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Benzo(ghi)perylene*	µg/l	No screening value		0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Total PAH (sum of 16)	µg/l	0.1	UK DWS	1	<0.01	0.07	0.47	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01	<0.01	<0.01	0.02	0.08	<0.01	<0.01	
Total PAH (sum of 4*)	µg/l	0.1	UK DWS	0																			
Metals																							
Arsenic (dissolved)	µg/l	10	UK DWS	5	<1	3	2	<1	<1	4	<1	<1	<1	11	6	<1	<1	<1	1	<1	<1	<1	<1
Boron (dissolved)	µg/l	1000	UK DWS	0																			
Cadmium (dissolved)	µg/l	5	UK DWS	0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Calcium (dissolved)	mg/l	No screening value		0	72	63	283	121	61	101	66	56	156	69	123	100	117	356	282	131	148	158	
Copper (dissolved)	µg/l	2000	UK DWS	0	12	7	28	8	19	8	8	8	10	7	9	7	8	9	9	8	15	11	1
Chromium (dissolved)	µg/l	50	UK DWS	2	10	3	34	8	9	<1	10	5	7	<1	<1	8	8	8	<1	6	15	10	<1
Chromium (hexavalent) (w)	mg/l	50	UK DWS	0	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Chromium (trivalent) (w)	mg/l	50	UK DWS	0	0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	
Lead (dissolved)	µg/l	10	UK DWS	34	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Manganese (dissolved)	µg/l	50	UK DWS	0																			
Magnesium (dissolved)	mg/l	No screening value		0																			
Mercury (dissolved)	µg/l	1	UK DWS	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5
Molybdenum (dissolved)	µg/l	No screening value		0																			3
Nickel (dissolved)	µg/l	20	UK DWS	3	2	3	2	<1	1	3	<1	<1	4	8	8	1	1	9	6	9	2	1	<1
Potassium (dissolved)	mg/l	No screening value		0	3	5	9	15	7	5	4	4	3	<1	2	8	5	2	6	9	5	<1	
Selenium (dissolved)	µg/l	10	UK DWS	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sodium (dissolved)	µg/l	200	UK DWS	3	20	34	72	409	95	26	44	8	13	15	207	32	15	35	116	290	16	11	
Vanadium (dissolved)	µg/l	No screening value		0																			
Zinc (dissolved)	µg/l	No screening value		0	4	3	8	10	22	3	50	6	3	17	2	2	3	6	8	65	5	8	6
BTEX																							
Benzene	µg/l	1	UK DWS	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Toluene	µg/l	700	WHO DWS	0	<1	3	8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Ethylbenzene	µg/l	300	WHO DWS	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
p & m-xylene	µg/l	500	WHO DWS	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
o-xylene	µg/l	500	WHO DWS	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value		0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
TPH																							
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS	0	<1	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS	0	<5	<5	16	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS	0	<5	<5	33	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS	1	93	29	227	<5	11	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	571	<5	<5	
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value		0	<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	12	<5	<5	
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value		0	8	28	91	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value		0	101	62	371	<5	11	10	<5	<5	<5	<5	<5	<5	<5	<5	<5	583	<5	<5	
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS	0	<1	3	8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS	0	<5	18	121	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS	1	<5	12	112	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	8	<5	<5	
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS	2	55	22	135	<5	18	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	132	<5	<5	
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS	0	7	21	20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10	18	<5	<5	
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS	0	12	<10	11	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value		0	74	76	407	<10	18	<10	<10	<10	<10	<10	<10	<10	<10	<10	10	158	<10	<10	
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value		0												<10	<10	<10	10	741	<10	<10	

Sample Reference				BH AB006	BHAB009	BH AB010	BH AB011	BH AB015	BH AB019	BH AB020	BH AB021	BH AB025	BH AB026	BH AB029	BH AB030	BH AB031	BH AB032	BH AB033	BH AB039	BH AB040	BH AB041	BH AB042	BH AB043
Depth (m)				0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.2	0.2	1.2	0.5	0.3	0.2	0.5	0.5	1.2	0.5	0.5	0.5	1.2
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				17/03/2021	18/03/2021		31/03/2021	06/04/2021	25/03/2021	26/03/2021	09/04/2021	14/04/2021	06/04/2021	12/04/2021	13/04/2021	12/04/2021	12/04/2021	15/04/2021	07/04/2021	07/04/2021	24/03/2021	01/04/2021	06/04/2021
	Units	GAC	Source																				
General Inorganics																							
pH (w)	pH	>6.5 x <9.5	UK DWS	6.23	4.77	6.86	6.26	6.81	5.26	6.7	6.11	5.05	6.93	6.8	7.4	6.09	6.16	6.26	6.8	5.69	6.69	6.63	6.33
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	68	16	101	36	22	55	154	22	17	55	69	185	41	28	74	49	394	34	45	70
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																					
Hardness Total	mg/l Ca CO3	No screening value																					
Total Suspended Solids (w)	mg/l	No screening value																					
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS																				
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																					
Chloride (w)	mg/l	250	UK DWS	7.2	4.24	37.25	16.36	5.45	14.53	6.57	15.95	1.83	13.32	20.14	15.28	3.15	16.17	11.8	2.94	4.93	6.19	16.18	4.35
Nitrite (w)	mg/l	0.5	UK DWS																				
Nitrate (w)	mg/l	50	UK DWS																				
Sulphate (w)	mg/l	250	UK DWS	24.02	10.6	<1	<1.00	5.76	12.04	6.63	2.96	2.15	52.1	4.71	25.44	1.37	3.83	17.77	1.08	192.4	6.63	41.67	19.58
Sulphide (w)	mg/l	No screening value																					
DOC (w)	mg/l	No screening value																					
Phenols																							
Total Phenols	µg/l	7.7	Freshwater EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																				
PAHs																							
Naphthalene	µg/l	No screening value																					
Acenaphthylene	µg/l	No screening value																					
Acenaphthene	µg/l	0.01	LOD																				
Fluorene	µg/l	No screening value																					
Phenanthrene	µg/l	No screening value																					
Anthracene	µg/l	0.1	EQS																				
Fluoranthene	µg/l	No screening value																					
Pyrene	µg/l	No screening value																					
Benzo(a)anthracene	µg/l	No screening value																					
Chrysene	µg/l	0.01	LOD																				
Benzo(b)fluoranthene*	µg/l	No screening value																					
Benzo(k)fluoranthene*	µg/l	No screening value																					
Benzo(a)pyrene	µg/l	0.01	UK DWS																				
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																					
Dibenz(a,h)anthracene	µg/l	No screening value																					
Benzo(ghi)perylene*	µg/l	No screening value																					
Total PAH (sum of 16)	µg/l	0.1	UK DWS																				
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																				
Metals																							
Arsenic (dissolved)	µg/l	10	UK DWS	<1	<1	1	<1	<1	5	1	<1	1	6	1	2	1	<1	3	2	5	<1	<1	1
Boron (dissolved)	µg/l	1000	UK DWS																				
Cadmium (dissolved)	µg/l	5	UK DWS	<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value																					
Copper (dissolved)	µg/l	2000	UK DWS	6	7	7	5	6	49	9	8	12	10	10	8	32	50	16	23	2	3	12	6
Chromium (dissolved)	µg/l	50	UK DWS	<1	<1	2	2	<1	11	1	<1	<1	<1	1	<1	<1	<1	3	<1	<1	<1	<1	<1
Chromium (hexavalent) (w)	mg/l	50	UK DWS																				
Chromium (trivalent) (w)	mg/l	50	UK DWS																				
Lead (dissolved)	µg/l	10	UK DWS	8	3	7	5	8	37	7	2	18	13	9	2	34	9	38	19	<1	6	12	6
Manganese (dissolved)	µg/l	50	UK DWS																				
Magnesium (dissolved)	mg/l	No screening value																					
Mercury (dissolved)	µg/l	1	UK DWS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value		<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	4	<1	<1	<1	<1	1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	1	1	2	1	2	32	2	<1	4	3	1	4	4	2	2	15	2	<1	3	2
Potassium (dissolved)	mg/l	No screening value																					
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	3	<1	<1	1	<1	<1	<1	<1	<1	1	1	<1	<1	<1	<1
Sodium (dissolved)	µg/l	200	UK DWS																				
Vanadium (dissolved)	µg/l	No screening value																					
Zinc (dissolved)	µg/l	No screening value		10	16	11	11	9	33	30	5	20	7	11	15	68	17	23	13	11	8	13	5
BTEX																							
Benzene	µg/l	1	UK DWS																				
Toluene	µg/l	700	WHO DWS																				
Ethylbenzene	µg/l	300	WHO DWS																				
p & m-xylene	µg/l	500	WHO DWS																				
o-xylene	µg/l	500	WHO DWS																				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																					
TPH																							
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS																				
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS																				
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS																				
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS																				
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS																				
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																					
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																					
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																					
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS																				
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS																				
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS																				
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS																				
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS																				
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS																				
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS																				
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																					
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																					

Sample Reference				BH AB044	BH AB045	BH AB046	TP AB001	TP AB002	TP AB003	TP AB004	TP AB005	TP AB007	TP AB009	TP AB011	TP AB012	TP AB014	TP AB015	TP AB017	TP AB018	TP AB019	TP AB020	TP AB022	TP AB023	TP AB025
Depth (m)				0.5	0.5	1	0.2	0.5	2.4	1	0.5	0.2	0.5	0.6	0.6	0.2	0.2	1.5	1.5	0.5	0.5	1.2	0.6	0.6
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				31/03/2021	01/04/2021	16/04/2021	18/03/2021	22/04/2021	17/03/2021	21/04/2021	22/03/2021	15/03/2021	10/03/2021	18/03/2021	15/03/2021	06/04/2021	30/03/2021	10/03/2021	01/04/2021	24/03/2021	25/03/2021	25/03/2021	08/04/2021	14/04/2021
	Units	GAC	Source																					
General Inorganics																								
pH (w)	pH	>6.5 x <9.5	UK DWS	6.68	7.12	6.96	6.7	5.47	6.33	7.96	6.69	5.7	6.69	7.07	6.96	6.9	6.02	5.99	6.65	5.8	5.89	6.08	6.42	7.13
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	63	92	61	99	14	52	156	118	251	91	290	266	33	33	33	24	25	27	79	53	190
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																						
Hardness Total	mg/l Ca CO3	No screening value																						
Total Suspended Solids (w)	mg/l	No screening value																						
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS																					
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																						
Chloride (w)	mg/l	250	UK DWS	21.43	8.13	10.33	16.16	<1.00	6.44	1.35	16.17	2.83	13.32	43.71	0.032	1.83	4.36	23.36	7.54	10.83	12.1	4.79	9.4	18.94
Nitrite (w)	mg/l	0.5	UK DWS																					
Nitrate (w)	mg/l	50	UK DWS																					
Sulphate (w)	mg/l	250	UK DWS	68.6	33.68	15.09	10.69	<1.00	1.43	4.16	<1.00	5.71	21.06	42.76	25.7	6.52	9.46	<1.00	19.63	<0.001	22.83	2.13	8.87	12
Sulphide (w)	mg/l	No screening value																						
DOC (w)	mg/l	No screening value																						
Phenols																								
Total Phenols	µg/l	7.7	Freshwater EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																					
PAHs																								
Naphthalene	µg/l	No screening value																						
Acenaphthylene	µg/l	No screening value																						
Acenaphthene	µg/l	0.01	LOD																					
Fluorene	µg/l	No screening value																						
Phenanthrene	µg/l	No screening value																						
Anthracene	µg/l	0.1	EQS																					
Fluoranthene	µg/l	No screening value																						
Pyrene	µg/l	No screening value																						
Benzo(a)anthracene	µg/l	No screening value																						
Chrysene	µg/l	0.01	LOD																					
Benzo(b)fluoranthene*	µg/l	No screening value																						
Benzo(k)fluoranthene*	µg/l	No screening value																						
Benzo(a)pyrene	µg/l	0.01	UK DWS																					
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																						
Dibenz(a,h)anthracene	µg/l	No screening value																						
Benzo(ghi)perylene*	µg/l	No screening value																						
Total PAH (sum of 16)	µg/l	0.1	UK DWS																					
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																					
Metals																								
Arsenic (dissolved)	µg/l	10	UK DWS	1	<1	2	4	3	<1	<1	19	4	1	3	32	<1	3	5	<1	3	<1	<1	<1	2
Boron (dissolved)	µg/l	1000	UK DWS																					
Cadmium (dissolved)	µg/l	5	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value																						
Copper (dissolved)	µg/l	2000	UK DWS	7	6	33	11	21	2	7	16	11	3	2	25	3	5	11	5	11	15	7	6	12
Chromium (dissolved)	µg/l	50	UK DWS	<1	<1	<1	2	4	<1	<1	52	4	<1	7	68	<1	3	9	<1	8	3	<1	<1	<1
Chromium (hexavalent) (w)	mg/l	50	UK DWS																					
Chromium (trivalent) (w)	mg/l	50	UK DWS																					
Lead (dissolved)	µg/l	10	UK DWS	7	4	25	27	61	1	2	37	8	3	15	41	6	34	9	2	12	16	1	5	12
Manganese (dissolved)	µg/l	50	UK DWS																					
Magnesium (dissolved)	mg/l	No screening value																						
Mercury (dissolved)	µg/l	1	UK DWS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value		<1	<1	<1	<1	<1	<1	<1	3	<1	<1	<1	7	<1	<1	<1	<1	<1	<1	<1	<1	1
Nickel (dissolved)	µg/l	20	UK DWS	1	<1	5	2	8	1	<1	26	3	1	5	32	1	2	3	<1	2	3	<1	1	1
Potassium (dissolved)	mg/l	No screening value																						
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	2	<1	2	<1	<1	2	<1	<1	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sodium (dissolved)	µg/l	200	UK DWS																					
Vanadium (dissolved)	µg/l	No screening value																						
Zinc (dissolved)	µg/l	No screening value		61	7	16	19	33	5	6	52	15	7	12	43	15	29	7	4	16	17	10	17	9
BTEX																								
Benzene	µg/l	1	UK DWS																					
Toluene	µg/l	700	WHO DWS																					
Ethylbenzene	µg/l	300	WHO DWS																					
p & m-xylene	µg/l	500	WHO DWS																					
o-xylene	µg/l	500	WHO DWS																					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																						
TPH																								
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS																					
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS																					
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																						
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																						
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																						
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS																					
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS																					
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS																					
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																						
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																						

Sample Reference				TP AB026	TP AB027	TP AB029	TP AB030	TP AB032	TP AB033	TP AB034	TP AB036	TP AB037	TP AB038	TP AB039	TP AB040	TP AB041	TP AB042	TP AB044	TP AB045	TP AB046	TP AB047	TP AB048	TP AB049	TP AB050
Depth (m)				0.2	0.2	0.2	0.2	0.5	0.6	0.3	0.2	1.5	1.2	1.2	1	0.6	0.2	0.7	1	0.5	1.5	1	0.2	0.6
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				08/04/2021	23/03/2021		25/03/2021		25/03/2021	31/03/2021	31/03/2021		23/03/2021	31/03/2021	31/03/2021	30/03/2021	31/03/2021	13/04/2021	13/04/2021	14/04/2021	13/04/2021	14/04/2021	14/04/2021	12/04/2021
	Units	GAC	Source																					
General Inorganics																								
pH (w)	pH	>6.5 x <9.5	UK DWS	6.43	6.11	6.48	6.83	6.47	6.34	6.98	7.49	6.95	6.89	6.44	6.94	6.28	6.17	5.68	5.36	6.79	5.43	6.6	6.29	5.84
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	148	118	65	272	56	52	118	93	43	93	46	87	32	46	37	28	41	29	44	56	43
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value																						
Hardness Total	mg/l Ca CO3	No screening value																						
Total Suspended Solids (w)	mg/l	No screening value																						
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS																					
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value																						
Chloride (w)	mg/l	250	UK DWS	6.14	2.82	7.43	4.73	10.81	8.82	1.84	1.21	20.11	4.31	15.93	4.57	21.98	6.86	6.01	7.59	<1.00	5.75	2.47	7	5.23
Nitrite (w)	mg/l	0.5	UK DWS																					
Nitrate (w)	mg/l	50	UK DWS																					
Sulphate (w)	mg/l	250	UK DWS	8.57	<1.00	8.88	<1.00	12.1	10.51	10.44	3.73	<1.00	8.27	30.66	14.49	<1.00	18.82	15.92	32.56	<1.00	<1.00	7.09	34.7	<1.00
Sulphide (w)	mg/l	No screening value																						
DOC (w)	mg/l	No screening value																						
Phenols																								
Total Phenols	µg/l	7.7	Freshwater EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS																					
PAHs																								
Naphthalene	µg/l	No screening value																						
Acenaphthylene	µg/l	No screening value																						
Acenaphthene	µg/l	0.01	LOD																					
Fluorene	µg/l	No screening value																						
Phenanthrene	µg/l	No screening value																						
Anthracene	µg/l	0.1	EQS																					
Fluoranthene	µg/l	No screening value																						
Pyrene	µg/l	No screening value																						
Benzo(a)anthracene	µg/l	No screening value																						
Chrysene	µg/l	0.01	LOD																					
Benzo(b)fluoranthene*	µg/l	No screening value																						
Benzo(k)fluoranthene*	µg/l	No screening value																						
Benzo(a)pyrene	µg/l	0.01	UK DWS																					
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value																						
Dibenz(a,h)anthracene	µg/l	No screening value																						
Benzo(ghi)perylene*	µg/l	No screening value																						
Total PAH (sum of 16)	µg/l	0.1	UK DWS																					
Total PAH (sum of 4*)	µg/l	0.1	UK DWS																					
Metals																								
Arsenic (dissolved)	µg/l	10	UK DWS	2	4	1	4	1	2	<1	3	<1	<1	2	<1	3	2	2	1	3	1	2	8	1
Boron (dissolved)	µg/l	1000	UK DWS																					
Cadmium (dissolved)	µg/l	5	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value																						
Copper (dissolved)	µg/l	2000	UK DWS	15	3	9	16	8	13	3	12	10	5	13	4	10	7	13	10	18	16	24	27	17
Chromium (dissolved)	µg/l	50	UK DWS	<1	3	<1	3	4	10	1	<1	2	<1	2	<1	2	<1	3	3	2	2	2	3	1
Chromium (hexavalent) (w)	mg/l	50	UK DWS																					
Chromium (trivalent) (w)	mg/l	50	UK DWS																					
Lead (dissolved)	µg/l	10	UK DWS	12	18	10	42	10	15	1	1	11	2	8	4	11	14	8	17	18	6	18	42	14
Manganese (dissolved)	µg/l	50	UK DWS																					
Magnesium (dissolved)	mg/l	No screening value																						
Mercury (dissolved)	µg/l	1	UK DWS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value		<1	<1	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	2	4	3	3	2	4	<1	<1	2	<1	5	1	1	2	5	3	2	5	3	2	3
Potassium (dissolved)	mg/l	No screening value																						
Selenium (dissolved)	µg/l	10	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5	<1	4	<1	3
Sodium (dissolved)	µg/l	200	UK DWS																					
Vanadium (dissolved)	µg/l	No screening value																						
Zinc (dissolved)	µg/l	No screening value		23	48	33	22	16	33	3	1	10	8	19	12	10	15	22	39	29	37	19	43	25
BTEX																								
Benzene	µg/l	1	UK DWS																					
Toluene	µg/l	700	WHO DWS																					
Ethylbenzene	µg/l	300	WHO DWS																					
p & m-xylene	µg/l	500	WHO DWS																					
o-xylene	µg/l	500	WHO DWS																					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value																						
TPH																								
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS																					
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS																					
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS																					
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value																						
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value																						
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value																						
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS																					
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS																					
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS																					
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS																					
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value																						
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value																						

Sample Reference				TP AB051	TP AB052	TP AB053	TP AB054	TP AB055	TP AB056	WS AB007	TP AB borrowpit01	TP AB borrowpit02	TP AB borrowpit03	TP AB borrowpit04
Depth (m)				0.6	1.2	1.5	0.2	0.2	0.5	1	0.2	0.5	0.75	0.5
Sample Type				Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate	Leachate
Date Sampled				12/04/2021	06/04/2021	12/04/2021	12/04/2021	12/04/2021	08/04/2021	30/03/2021	21/04/2021	21/04/2021	21/04/2021	21/04/2021
	Units	GAC	Source											
General Inorganics														
pH (w)	pH	>6.5 x <9.5	UK DWS	6.41	7.24	6.42	6.25	6.47	6.68	6.34	6.54	6.36	6.14	6
Electrical conductivity @ 20degC (w)	µs/cm	2500	UK DWS	45	163	57	50	121	83	27	39	29	21	27
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	No screening value												
Hardness Total	mg/l Ca CO3	No screening value												
Total Suspended Solids (w)	mg/l	No screening value												
Ammoniacal nitrogen as N (w)	mg/l	0.5	UK DWS											
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	No screening value												
Chloride (w)	mg/l	250	UK DWS	7.08	9.2	3.24	16.87	10.85	19.33	9.59	2.43	8.28	6.75	25.82
Nitrite (w)	mg/l	0.5	UK DWS											
Nitrate (w)	mg/l	50	UK DWS											
Sulphate (w)	mg/l	250	UK DWS	9.08	35.29	<1.00	<1.00	23.6	14.5	<1.00	8.85	10.73	3.72	103.58
Sulphide (w)	mg/l	No screening value												
DOC (w)	mg/l	No screening value												
Phenols														
Total Phenols	µg/l	7.7	Freshwater EQS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS											
PAHs														
Naphthalene	µg/l	No screening value												
Acenaphthylene	µg/l	No screening value												
Acenaphthene	µg/l	0.01	LOD											
Fluorene	µg/l	No screening value												
Phenanthrene	µg/l	No screening value												
Anthracene	µg/l	0.1	EQS											
Fluoranthene	µg/l	No screening value												
Pyrene	µg/l	No screening value												
Benzo(a)anthracene	µg/l	No screening value												
Chrysene	µg/l	0.01	LOD											
Benzo(b)fluoranthene*	µg/l	No screening value												
Benzo(k)fluoranthene*	µg/l	No screening value												
Benzo(a)pyrene	µg/l	0.01	UK DWS											
Indeno(1,2,3-cd)pyrene*	µg/l	No screening value												
Dibenz(a,h)anthracene	µg/l	No screening value												
Benzo(ghi)perylene*	µg/l	No screening value												
Total PAH (sum of 16)	µg/l	0.1	UK DWS											
Total PAH (sum of 4*)	µg/l	0.1	UK DWS											
Metals														
Arsenic (dissolved)	µg/l	10	UK DWS	<1	19	3	2	12	<1	<1	2	2	2	<1
Boron (dissolved)	µg/l	1000	UK DWS											
Cadmium (dissolved)	µg/l	5	UK DWS	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium (dissolved)	mg/l	No screening value												
Copper (dissolved)	µg/l	2000	UK DWS	12	20	23	14	15	7	8	7	11	6	6
Chromium (dissolved)	µg/l	50	UK DWS	<1	1	<1	<1	1	<1	<1	2	3	3	<1
Chromium (hexavalent) (w)	mg/l	50	UK DWS											
Chromium (trivalent) (w)	mg/l	50	UK DWS											
Lead (dissolved)	µg/l	10	UK DWS	8	19	5	25	52	11	3	32	10	3	7
Manganese (dissolved)	µg/l	50	UK DWS											
Magnesium (dissolved)	mg/l	No screening value												
Mercury (dissolved)	µg/l	1	UK DWS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum (dissolved)	µg/l	No screening value		<1	14	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (dissolved)	µg/l	20	UK DWS	1	6	3	3	3	1	<1	2	4	2	2
Potassium (dissolved)	mg/l	No screening value												
Selenium (dissolved)	µg/l	10	UK DWS	<1	4	2	<1	<1	<1	<1	<1	1	<1	<1
Sodium (dissolved)	µg/l	200	UK DWS											
Vanadium (dissolved)	µg/l	No screening value												
Zinc (dissolved)	µg/l	No screening value		18	9	26	35	108	8	4	19	21	25	6
BTEX														
Benzene	µg/l	1	UK DWS											
Toluene	µg/l	700	WHO DWS											
Ethylbenzene	µg/l	300	WHO DWS											
p & m-xylene	µg/l	500	WHO DWS											
o-xylene	µg/l	500	WHO DWS											
MTBE (Methyl Tertiary Butyl Ether)	µg/l	No screening value												
TPH														
TPH-CWG - Aliphatic >C5 - C6	µg/l	15000	WHO DWS											
TPH-CWG - Aliphatic >C6 - C8	µg/l	15000	WHO DWS											
TPH-CWG - Aliphatic >C8 - C10	µg/l	300	WHO DWS											
TPH-CWG - Aliphatic >C10 - C12	µg/l	300	WHO DWS											
TPH-CWG - Aliphatic >C12 - C16	µg/l	300	WHO DWS											
TPH-CWG - Aliphatic >C16 - C21	µg/l	No screening value												
TPH-CWG - Aliphatic >C21 - C35	µg/l	No screening value												
TPH-CWG - Aliphatic (C5 - C35)	µg/l	No screening value												
TPH-CWG - Aromatic >C5 - C7	µg/l	1	UK DWS											
TPH-CWG - Aromatic >C7 - C8	µg/l	700	WHO DWS											
TPH-CWG - Aromatic >C8 - C10	µg/l	300	WHO DWS											
TPH-CWG - Aromatic >C10 - C12	µg/l	90	WHO DWS											
TPH-CWG - Aromatic >C12 - C16	µg/l	90	WHO DWS											
TPH-CWG - Aromatic >C16 - C21	µg/l	90	WHO DWS											
TPH-CWG - Aromatic >C21 - C35	µg/l	90	WHO DWS											
TPH-CWG - Aromatic (C5 - C35)	µg/l	No screening value												
TPH (Ali & Aro >C5-C35) (w)	µg/l	No screening value												

A66 Northern Trans-Pennine

Geo-Env - WP A - Appx D5.6 - AB T2 EQS CWRA

Temple Sowerby to Appleby

Document Verification	
Project Title	A66 Northern Trans-Pennine Temple Sowerby to Appleby
Document Title	Geo-Env - WP A - Appx D5.6 - AB T2 EQS CWRA
Document Ref	HE565627-AMY-HGT-S0405-SI-CE-000040

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination				
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	15/12/21	15/12/21	15/12/21	15/12/21	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Sample Number					SW BH AB043	SW BH AB020	SW BH AB025	SW BH AB026	SW BH AB028
Depth (m)					0.00	0.00	0.00	0.00	0.00
Sample Type					Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Date Sampled					10/06/2021	09/06/2021	09/06/2021	09/06/2021	09/06/2021
	Units	GAC	Source						
General Inorganics									
pH	pH Units		No screening value		8.01	8.2	8.17	8.08	8.26
Conductivity uS/cm @ 25C w	uS/cm		No screening value	0	382	282	279	283	333
Alkalinity	mg/l Ca CO3		No screening value	0	180				
Hardness Total	mg/l Ca CO3		No screening value	0	220				
Total dissolved solids	mg/l		No screening value	0					
Ammoniacal nitrogen as N (w)	mg/l	0.04	EQS	2	0.12	0.04	0.04	0.06	0.04
Ammonia (free unionised)	mg/l		No screening value	0	0.00634	0.00324	0.00324	0.00393	0.004
Chloride	mg/l		250000	0	12	9	27	11	7
Nitrite (w)	mg/l		No screening value	0	0.3	<0.1	<0.1	<0.1	<0.1
Nitrate (w)	mg/l		No screening value	0	3.3	2	4.6	5.1	1.3
Sulphide	mg/l		No screening value	0	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate	mg/l		No screening value		16	15	15	16	21
Dissolved organic carbons	mg/l		No screening value		1.1	0.8	1.5	0.5	1.1
Phenols									
Total Phenols	µg/l	7.7	Freshwater EQS						
Total Phenols (monohydric)	µg/l	7.7	Freshwater EQS						
PAHs									
Naphthalene	µg/l	130	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	µg/l	0.1	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)anthracene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(b)fluoranthene*	µg/l	0.017	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(k)fluoranthene*	µg/l	0.017	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)pyrene	µg/l	0.27	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene*	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	µg/l	0.01	LOD	0	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(ghi)perylene*	µg/l	0.00082	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Total PAH (sum of 16)	µg/l	0.01	EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Total PAH (sum of 4*)	µg/l	0.01	EQS	0	0	0	0	0	0
Metals									
Arsenic	ug/l	50	Freshwater EQS	0	<1	<1	<1	<1	<1
Boron	ug/l	2000	EQS	0					
Cadmium	ug/l	0.45	Freshwater EQS	0	<0.2	<0.2	<0.2	<0.2	<0.2
Calcium	mg/l		No screening value	0	69	43	45	44	55
Chromium (hexavalent)	mg/l	3.4	Freshwater EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (III)	mg/l	32	Freshwater EQS	0	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	ug/l		No screening value	0	6	7	7	7	<1
Copper	ug/l	1	Bioavailable Freshwater EQS	5	9	9	10	7	9
iron	ug/l	1000	Freshwater EQS	0					
Lead	ug/l	14	Bioavailable Freshwater EQS	0	<1	<1	<1	<1	<1
Manganese	ug/l	123	Bioavailable Freshwater EQS	0					
Mercury	ug/l	0.07	Bioavailable Freshwater EQS	0	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	µg/l	0.5	LOD	0					
Nickel	ug/l	34	Bioavailable Freshwater EQS	0	<1	<1	<1	<1	<1
Selenium	µg/l	1	LOD	0	<1	<1	<1	<1	<1
Vanadium	mg/l	20	EQS	0					
Zinc	ug/l	10.9	EQS	1	2	3	11	2	2
BTEX									
Benzene	µg/l	50	Freshwater EQS	0	<1	<1	<1	<1	<1
Toluene	µg/l	74	Freshwater EQS	0	<1	<1	<1	<1	<1
Ethylbenzene	µg/l	1	LOD	0	<1	<1	<1	<1	<1
p & m-xylene	µg/l	30	Freshwater EQS	0	<1	<1	<1	<1	<1
o-xylene	µg/l	30	Freshwater EQS	0	<1	<1	<1	<1	<1
MTBE (Methyl Tertiary Butyl Ether)	µg/l		No screening value	0	<1	<1	<1	<1	<1
TPH									
TPH-CWG - Aliphatic >C5 - C6	µg/l		No screening value	0	<1	<1	<1	<1	<1
TPH-CWG - Aliphatic >C6 - C8	µg/l		No screening value	0	<1	<1	<1	<1	<1
TPH-CWG - Aliphatic >C8 - C10	µg/l		No screening value	0	6	<5	<5	<5	<5
TPH-CWG - Aliphatic >C10 - C12	µg/l		No screening value	0	<5	<5	<5	<5	<5
TPH-CWG - Aliphatic >C12 - C16	µg/l		No screening value	0	<5	<5	<10	<5	<5
TPH-CWG - Aliphatic >C16 - C21	µg/l		No screening value	0	<5	<5	40	<5	<5
TPH-CWG - Aliphatic >C21 - C35	µg/l		No screening value	0	<5	<5	17	<5	<5
TPH-CWG - Aliphatic (C5 - C35)	µg/l		No screening value	0	6	<5	66	<5	<5
TPH-CWG - Aromatic >C5 - C7	µg/l	50	EQS	0	<1	<1	<1	<1	<1
TPH-CWG - Aromatic >C7 - C8	µg/l		No screening value	0	<1	<1	<1	<1	<1
TPH-CWG - Aromatic >C8 - C10	µg/l		No screening value	0	<5	<5	<5	<5	<5
TPH-CWG - Aromatic >C10 - C12	µg/l		No screening value	0	<5	<5	<5	<5	<5
TPH-CWG - Aromatic >C12 - C16	µg/l		No screening value	0	<5	<5	6	<5	<5
TPH-CWG - Aromatic >C16 - C21	µg/l		No screening value	0	<5	<5	33	<5	<5
TPH-CWG - Aromatic >C21 - C35	µg/l		No screening value	0	<10	<10	<10	<10	<10
TPH-CWG - Aromatic (C5 - C35)	µg/l		No screening value	0	<10	<10	39	<10	<10
TPH (Ali & Aro >C5-C35) (w)	µg/l		No screening value	0	<10	<10	105	<10	<10

D.6 KTB HazWasteOnline™ Report

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 KTB - TOPSOIL

Description/Comments

33 topsoil samples taken from fields surrounding the existing A66 between Kirkby Thore and Appleby. The samples were taken to inform design of the A66 upgrade works.

Project

A66 NTP

Site

Temple Sowerby to Appleby – Kirkby Thore

Classified by

Name:
Jennifer Morley
Date:
15 Oct 2021 15:19 GMT
Telephone:
0169 873 0228

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP KTB001	0.30	Non Hazardous		3
2	TP KTB003	0.2	Non Hazardous		6
3	TP KTB004	0.20	Non Hazardous		9
4	TP KTB005	0.2	Non Hazardous		12
5	TP KTB006	0.20	Non Hazardous		15
6	TP KTB008	0.20	Non Hazardous		18
7	TP KTB013	0.2	Non Hazardous		21
8	TP KTB014	0.2	Non Hazardous		24
9	TP KTB019	0.20	Non Hazardous		27
10	TP KTB022	0.20	Non Hazardous		30
11	TP KTB024	0.70	Non Hazardous		33
12	BH KTB001	0.50	Non Hazardous		35
13	BH KTB002	0.5	Non Hazardous		37
14	BH KTB003	0.50	Non Hazardous		40
15	BH KTB004	0.30	Non Hazardous		42
16	BH KTB005	0.30	Non Hazardous		45
17	BH KTB007	0.30	Non Hazardous		48
18	BH KTB009	0.20	Non Hazardous		51
19	BH KTB010	0.30	Non Hazardous		54
20	BH KTB011	0.10	Non Hazardous		57
21	BH KTB012	0.10	Non Hazardous		60
22	BH KTB013	0.50	Non Hazardous		63
23	BH KTB014	0.1	Non Hazardous		65
24	BH KTB015	0.2	Non Hazardous		68
25	BH KTB016A	0.30	Non Hazardous		71
26	BH KTB017	0.30	Non Hazardous		74
27	BH KTB018	0.30	Non Hazardous		77
28	BH KTB019	0.30	Non Hazardous		80
29	BH KTB021 mining	0.20	Non Hazardous		83
30	BH KTB023	0.20	Non Hazardous		86
31	BH KTB024	0.5	Non Hazardous		89
32	BH KTB026	0.3	Non Hazardous		91
33	BH KTB027	0.30	Non Hazardous		94

Related documents

#	Name	Description
1	E01. geoenvironmental results (KTB).pdf	Document attached to Job: A66 KTB - TOPSOIL
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 15 Oct 2021 15:19 GMT

Classification of sample: TP KTB001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB001
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	27 mg/kg		27 mg/kg	0.0027 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		41 mg/kg	1.245	51.033 mg/kg	0.0051 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		42 mg/kg		42 mg/kg	0.0042 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.14	pH		6.14	pH	6.14 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			201-581-5	85-01-8									
25		anthracene				0.02	mg/kg		0.02	mg/kg	0.000002 %	✓	
			204-371-1	120-12-7									
26		fluoranthene				0.36	mg/kg		0.36	mg/kg	0.000036 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.31	mg/kg		0.31	mg/kg	0.000031 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.21	mg/kg		0.21	mg/kg	0.000021 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.29	mg/kg		0.29	mg/kg	0.000029 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.24	mg/kg		0.24	mg/kg	0.000024 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.14	mg/kg		0.14	mg/kg	0.000014 %	✓	
			205-883-8	191-24-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0216 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0042%)

Classification of sample: TP KTB003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB003
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	24 mg/kg		24 mg/kg	0.0024 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34 mg/kg	1.245	42.32 mg/kg	0.00423 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		4 mg/kg		4 mg/kg	0.0004 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.56	pH		6.56	pH	6.56 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			205-912-4	206-44-0									
30		pyrene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			204-927-3	129-00-0									
31		benzo[a]anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				21	mg/kg	1.785	37.489	mg/kg	0.00375 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0192 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: TP KTB004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB004	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<**LOD**
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4 mg/kg		4 mg/kg	0.0004 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		7 mg/kg	0.0007 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				5.82	pH		5.82	pH	5.82 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				9	mg/kg	1.785	16.067	mg/kg	0.00161 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0108 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP KTB005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB005
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	28 mg/kg		28 mg/kg	0.0028 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34 mg/kg	1.245	42.32 mg/kg	0.00423 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		5 mg/kg		5 mg/kg	0.0005 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.37	pH		6.37	pH	6.37 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				14	mg/kg	1.785	24.993	mg/kg	0.0025 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0175 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP KTB006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB006	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<**LOD**
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		4 mg/kg		4 mg/kg	0.0004 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.45	pH		6.45	pH	6.45 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				16	mg/kg	1.785	28.563	mg/kg	0.00286 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0157 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: TP KTB008

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB008
Sample Depth:
0.20 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	22 mg/kg		22 mg/kg	0.0022 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		9 mg/kg		9 mg/kg	0.0009 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
22		pH				5.44	pH		5.44	pH	5.44 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0176 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0009%)

Classification of sample: TP KTB013

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB013
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	25 mg/kg		25 mg/kg	0.0025 %	✓	
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		29 mg/kg	1.245	36.097 mg/kg	0.00361 %	✓	
14	TPH (C6 to C40) petroleum group			TPH		8 mg/kg		8 mg/kg	0.0008 %	✓	
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		pH				6.21	pH		6.21	pH	6.21 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0174 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0008%)

Classification of sample: TP KTB014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB014
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5	mg/kg	2.775	<1.388	mg/kg	<0.000139 %		<LOD
3		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
4		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
5		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
6		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
7		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7	mg/kg	1.126	7.881	mg/kg	0.000788 %	✓	
8		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16	mg/kg		16	mg/kg	0.0016 %	✓	
9		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
10		molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1	mg/kg	1.5	<1.5	mg/kg	<0.00015 %		<LOD
11		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
12		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
13		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		26	mg/kg	1.245	32.363	mg/kg	0.00324 %	✓	
14		TPH (C6 to C40) petroleum group			TPH		32	mg/kg		32	mg/kg	0.0032 %	✓	
15		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		pH				6.3	pH		6.3	pH	6.3 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
			205-912-4	206-44-0									
29		pyrene				0.17	mg/kg		0.17	mg/kg	0.000017 %	✓	
			204-927-3	129-00-0									
30		benzo[a]anthracene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				0.14	mg/kg		0.14	mg/kg	0.000014 %	✓	
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-883-8	191-24-2									
38		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0174 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0032%)

Classification of sample: TP KTB019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB019	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		9 mg/kg		9 mg/kg	0.0009 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.79	pH		6.79	pH	6.79 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				16	mg/kg	1.785	28.563	mg/kg	0.00286 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0169 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0009%)

Classification of sample: TP KTB022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB022
Sample Depth:
0.20 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	22 mg/kg		22 mg/kg	0.0022 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34 mg/kg	1.245	42.32 mg/kg	0.00423 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		26 mg/kg		26 mg/kg	0.0026 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.3	pH		6.3	pH	6.3 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				19	mg/kg	1.785	33.919	mg/kg	0.00339 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0199 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0026%)

Classification of sample: TP KTB024

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB024
Sample Depth:
0.70 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.16	pH		7.16	pH	7.16 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0114 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB001	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.50 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		32 mg/kg		32 mg/kg	0.0032 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		7.27	pH		7.27	pH	7.27 pH		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
20		acenaphthylene	205-917-1	208-96-8		0.02	mg/kg		0.02	mg/kg	0.000002 %	✓	
21		acenaphthene	201-469-6	83-32-9		0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
22		fluorene	201-695-5	86-73-7		0.02	mg/kg		0.02	mg/kg	0.000002 %	✓	
23		phenanthrene	201-581-5	85-01-8		0.22	mg/kg		0.22	mg/kg	0.000022 %	✓	
24		anthracene	204-371-1	120-12-7		0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
25		fluoranthene	205-912-4	206-44-0		0.9	mg/kg		0.9	mg/kg	0.00009 %	✓	
26		pyrene	204-927-3	129-00-0		0.85	mg/kg		0.85	mg/kg	0.000085 %	✓	
27		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		0.62	mg/kg		0.62	mg/kg	0.000062 %	✓	
28		chrysene 601-048-00-0	205-923-4	218-01-9		0.62	mg/kg		0.62	mg/kg	0.000062 %	✓	
29		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		0.92	mg/kg		0.92	mg/kg	0.000092 %	✓	
30		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		0.34	mg/kg		0.34	mg/kg	0.000034 %	✓	
31		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		0.81	mg/kg		0.81	mg/kg	0.000081 %	✓	
32		indeno[123-cd]pyrene	205-893-2	193-39-5		0.59	mg/kg		0.59	mg/kg	0.000059 %	✓	
33		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
34		benzo[ghi]perylene	205-883-8	191-24-2		0.5	mg/kg		0.5	mg/kg	0.00005 %	✓	
										Total:	0.0155 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0032%)

Classification of sample: BH KTB002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB002
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		4 mg/kg		4 mg/kg	0.0004 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.25	pH		7.25	pH	7.25 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0152 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: BH KTB003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB003
Sample Depth:
0.50 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.8	pH		6.8	pH	6.8 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				17	mg/kg	1.785	30.348	mg/kg	0.00303 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0153 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB004
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19 mg/kg		19 mg/kg	0.0019 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		29 mg/kg	1.245	36.097 mg/kg	0.00361 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		15 mg/kg		15 mg/kg	0.0015 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.19	pH		6.19	pH	6.19 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0174 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0015%)

Classification of sample: BH KTB005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB005	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<**LOD**
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	18.014 mg/kg	0.0018 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	32 mg/kg		32 mg/kg	0.0032 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		47 mg/kg	1.245	58.502 mg/kg	0.00585 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		10 mg/kg		10 mg/kg	0.001 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.34	pH		6.34	pH	6.34 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				24	mg/kg	1.785	42.844	mg/kg	0.00428 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0224 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: BH KTB007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB007
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.5 mg/kg	2.775	1.388 mg/kg	0.000139 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<1 mg/kg	1.142	<1.142 mg/kg	<0.000114 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23 mg/kg	1.462	33.616 mg/kg	0.00336 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14 mg/kg	1.126	15.762 mg/kg	0.00158 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19 mg/kg		19 mg/kg	0.0019 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		43 mg/kg	1.245	53.523 mg/kg	0.00535 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		62 mg/kg		62 mg/kg	0.0062 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.61	pH		6.61	pH	6.61 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				0.17	mg/kg		0.17	mg/kg	0.000017 %	✓	
			205-912-4	206-44-0									
29		pyrene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			204-927-3	129-00-0									
30		benzo[a]anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				27	mg/kg	1.785	48.2	mg/kg	0.00482 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0294 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0062%)

Classification of sample: BH KTB009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB009	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<**LOD**
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	28 mg/kg		28 mg/kg	0.0028 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		42 mg/kg	1.245	52.278 mg/kg	0.00523 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.65	pH		6.65	pH	6.65 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				26	mg/kg	1.785	46.415	mg/kg	0.00464 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0218 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB010
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	12.385 mg/kg	0.00124 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	29 mg/kg		29 mg/kg	0.0029 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		39 mg/kg	1.245	48.544 mg/kg	0.00485 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		50 mg/kg		50 mg/kg	0.005 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
22		pH				6.92	pH		6.92	pH	6.92 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				0.02	mg/kg		0.02	mg/kg	0.000002 %	✓	
			205-917-1	208-96-8									
25		acenaphthene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			201-469-6	83-32-9									
26		fluorene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			201-695-5	86-73-7									
27		phenanthrene				0.52	mg/kg		0.52	mg/kg	0.000052 %	✓	
			201-581-5	85-01-8									
28		anthracene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			204-371-1	120-12-7									
29		fluoranthene				1.5	mg/kg		1.5	mg/kg	0.00015 %	✓	
			205-912-4	206-44-0									
30		pyrene				1.23	mg/kg		1.23	mg/kg	0.000123 %	✓	
			204-927-3	129-00-0									
31		benzo[a]anthracene				0.62	mg/kg		0.62	mg/kg	0.000062 %	✓	
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				0.66	mg/kg		0.66	mg/kg	0.000066 %	✓	
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				0.83	mg/kg		0.83	mg/kg	0.000083 %	✓	
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				0.3	mg/kg		0.3	mg/kg	0.00003 %	✓	
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				0.66	mg/kg		0.66	mg/kg	0.000066 %	✓	
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				0.52	mg/kg		0.52	mg/kg	0.000052 %	✓	
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				0.42	mg/kg		0.42	mg/kg	0.000042 %	✓	
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				14	mg/kg	1.785	24.993	mg/kg	0.0025 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0239 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.005%)

Classification of sample: BH KTB011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB011	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.10 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<**LOD**
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13 mg/kg	1.126	14.637 mg/kg	0.00146 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	28 mg/kg		28 mg/kg	0.0028 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		40 mg/kg	1.245	49.789 mg/kg	0.00498 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		7 mg/kg	0.0007 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				5.95	pH		5.95	pH	5.95 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				31	mg/kg	1.785	55.341	mg/kg	0.00553 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0236 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: BH KTB012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB012
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5 mg/kg		5 mg/kg	0.0005 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		18 mg/kg	1.126	20.266 mg/kg	0.00203 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		18 mg/kg	0.0018 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		53 mg/kg	1.245	65.97 mg/kg	0.0066 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		25 mg/kg		25 mg/kg	0.0025 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.22	pH		7.22	pH	7.22 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				27	mg/kg	1.785	48.2	mg/kg	0.00482 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0249 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0025%)

Classification of sample: BH KTB013

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB013	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.50 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<**LOD**
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		12 mg/kg	1.245	14.937 mg/kg	0.00149 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.63	pH		6.63	pH	6.63 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				16	mg/kg	1.785	28.563	mg/kg	0.00286 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0122 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB014	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.1 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		18 mg/kg	0.0018 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		9 mg/kg		9 mg/kg	0.0009 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.1	pH		6.1	pH	6.1 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				17	mg/kg	1.785	30.348	mg/kg	0.00303 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0174 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0009%)

Classification of sample: BH KTB015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB015
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		18 mg/kg	0.0018 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		29 mg/kg	1.245	36.097 mg/kg	0.00361 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		4 mg/kg		4 mg/kg	0.0004 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.52	pH		6.52	pH	6.52 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				16	mg/kg	1.785	28.563	mg/kg	0.00286 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0164 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: BH KTB016A

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB016A	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13 mg/kg	1.126	14.637 mg/kg	0.00146 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	36 mg/kg		36 mg/kg	0.0036 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		64 mg/kg	1.245	79.662 mg/kg	0.00797 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		33 mg/kg		33 mg/kg	0.0033 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.6	pH		6.6	pH	6.6 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			201-581-5	85-01-8									
27		anthracene				0.02	mg/kg		0.02	mg/kg	0.000002 %	✓	
			204-371-1	120-12-7									
28		fluoranthene				0.4	mg/kg		0.4	mg/kg	0.00004 %	✓	
			205-912-4	206-44-0									
29		pyrene				0.34	mg/kg		0.34	mg/kg	0.000034 %	✓	
			204-927-3	129-00-0									
30		benzo[a]anthracene				0.23	mg/kg		0.23	mg/kg	0.000023 %	✓	
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				0.25	mg/kg		0.25	mg/kg	0.000025 %	✓	
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				0.27	mg/kg		0.27	mg/kg	0.000027 %	✓	
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				0.25	mg/kg		0.25	mg/kg	0.000025 %	✓	
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0258 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0033%)

Classification of sample: BH KTB017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB017
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21 mg/kg		21 mg/kg	0.0021 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27 mg/kg	1.245	33.607 mg/kg	0.00336 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		7 mg/kg	0.0007 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.5	pH		6.5	pH	6.5 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				17	mg/kg	1.785	30.348	mg/kg	0.00303 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0148 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: BH KTB018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB018
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		69 mg/kg		69 mg/kg	0.0069 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				5.2	pH		5.2	pH	5.2 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.018 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely

to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0069%)

Classification of sample: BH KTB019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB019
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	22 mg/kg		22 mg/kg	0.0022 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34 mg/kg	1.245	42.32 mg/kg	0.00423 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		10 mg/kg		10 mg/kg	0.001 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				5.86	pH		5.86	pH	5.86 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				20	mg/kg	1.785	35.704	mg/kg	0.00357 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0184 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: BH KTB021 mining

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB021 mining
Sample Depth:
0.20 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	27 mg/kg		27 mg/kg	0.0027 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		58 mg/kg	1.245	72.193 mg/kg	0.00722 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		21 mg/kg		21 mg/kg	0.0021 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.22	pH		7.22	pH	7.22 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			205-912-4	206-44-0									
30		pyrene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			204-927-3	129-00-0									
31		benzo[a]anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				0.17	mg/kg		0.17	mg/kg	0.000017 %	✓	
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				31	mg/kg	1.785	55.341	mg/kg	0.00553 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0282 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0021%)

Classification of sample: BH KTB023

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB023

Sample Depth:
0.20 m

LoW Code:

Chapter:
17: Construction and Demolition Wastes (including excavated soil from contaminated sites)

Entry:
17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12 mg/kg		12 mg/kg	0.0012 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9 mg/kg	2.806	25.25 mg/kg	0.00253 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		29 mg/kg		29 mg/kg	0.0029 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		0.07 mg/kg		0.07 mg/kg	0.000007 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.5	pH		7.5	pH	7.5 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				25	mg/kg	1.785	44.63	mg/kg	0.00446 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0182 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

toluene: (conc.: 7.0e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0029%)

Classification of sample: BH KTB024

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB024
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.6 mg/kg	2.775	1.665 mg/kg	0.000167 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		29 mg/kg	1.462	42.385 mg/kg	0.00424 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		19 mg/kg	2.806	53.306 mg/kg	0.00533 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.44	pH		7.44	pH	7.44 pH		
				PH									
22		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				30	mg/kg	1.785	53.556	mg/kg	0.00536 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0221 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB026

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB026
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		25 mg/kg	1.462	36.539 mg/kg	0.00365 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	18.014 mg/kg	0.0018 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	25 mg/kg		25 mg/kg	0.0025 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		42 mg/kg	1.245	52.278 mg/kg	0.00523 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		19 mg/kg		19 mg/kg	0.0019 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.25	pH		7.25	pH	7.25 pH		
				PH									
22		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.024 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0019%)

Classification of sample: BH KTB027

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB027
Sample Depth:
0.30 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	24 mg/kg		24 mg/kg	0.0024 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		35 mg/kg	1.245	43.565 mg/kg	0.00436 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		7 mg/kg	0.0007 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.57	pH		6.57	pH	6.57 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			205-912-4	206-44-0									
30		pyrene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			204-927-3	129-00-0									
31		benzo[a]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.0141 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case available species

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.246.4869.9247 (05 Sep 2021)
HazWasteOnline Database: 2021.246.4869.9247 (05 Sep 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 KTB - Made Ground

Description/Comments

Ten Made Ground samples taken from along the existing A66 and from surrounding land in order to inform design of the upgrade works

Project

A66 NTP

Site

Temple Sowerby to Appleby – Kirkby Thore

Classified by

Name:
Jennifer Morley
Date:
19 Oct 2021 13:55 GMT
Telephone:
[redacted]

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP KTB011	0.5	Non Hazardous		2
2	TP KTB016(BRE)	0.5	Non Hazardous		4
3	TP KTB016(BRE)[2]	0.8	Non Hazardous		7
4	TP KTB017	0.2	Non Hazardous		10
5	TP KTB017[2]	0.7	Non Hazardous		13
6	BH KTB006	0.1	Non Hazardous		16
7	BH KTB010	1	Non Hazardous		19
8	BH KTB022	0.1	Non Hazardous		22
9	TP KTB018	0.2	Non Hazardous		25
10	TP KTB018[2]	0.5	Non Hazardous		28

Related documents

#	Name	Description
1	E01. geoenvironmental results (KTB).pdf	Document attached to Job: A66 KTB - Made Ground
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 19 Oct 2021 13:55 GMT

Classification of sample: TP KTB011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB011
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5 mg/kg		5 mg/kg	0.0005 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23 mg/kg	1.462	33.616 mg/kg	0.00336 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
14	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		pH				7.27	pH		7.27	pH	7.27 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	39.274	mg/kg	0.00393 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0191 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB016(BRE)

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB016(BRE)
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.82	pH		7.82	pH	7.82 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	39.274	mg/kg	0.00393 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0197 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP KTB016(BRE)[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB016(BRE)[2]
Sample Depth:
0.8 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.8 mg/kg	2.775	2.22 mg/kg	0.000222 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		22 mg/kg	1.462	32.154 mg/kg	0.00322 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	16.888 mg/kg	0.00169 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		23 mg/kg	2.806	64.528 mg/kg	0.00645 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		33 mg/kg	1.245	41.076 mg/kg	0.00411 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		3 mg/kg		3 mg/kg	0.0003 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				8.49	pH		8.49	pH	8.49 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0234 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: TP KTB017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB017
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		26 mg/kg	1.245	32.363 mg/kg	0.00324 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		14 mg/kg		14 mg/kg	0.0014 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.07	pH		7.07	pH	7.07 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				24	mg/kg	1.785	42.844	mg/kg	0.00428 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0213 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0014%)

Classification of sample: TP KTB017[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB017[2]
Sample Depth:
0.7 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.8 mg/kg	2.775	2.22 mg/kg	0.000222 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	1.028 mg/kg	0.000103 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14 mg/kg	1.126	15.762 mg/kg	0.00158 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	15 mg/kg		15 mg/kg	0.0015 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		23 mg/kg	2.806	64.528 mg/kg	0.00645 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		2 mg/kg	2.351	4.702 mg/kg	0.00047 %	✓	
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		32 mg/kg	1.245	39.831 mg/kg	0.00398 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.18	pH		7.18	pH	7.18 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				24	mg/kg	1.785	42.844	mg/kg	0.00428 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0246 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB006
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	27 mg/kg		27 mg/kg	0.0027 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		37 mg/kg	1.245	46.054 mg/kg	0.00461 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		15 mg/kg		15 mg/kg	0.0015 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.33	pH		6.33	pH	6.33 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			205-912-4	206-44-0									
29		pyrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			204-927-3	129-00-0									
30		benzo[a]anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0175 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0015%)

Classification of sample: BH KTB010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB010	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6 mg/kg		6 mg/kg	0.0006 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.8 mg/kg	2.775	2.22 mg/kg	0.000222 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	1.028 mg/kg	0.000103 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23 mg/kg	1.462	33.616 mg/kg	0.00336 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		22 mg/kg	1.126	24.77 mg/kg	0.00248 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	37 mg/kg		37 mg/kg	0.0037 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		19 mg/kg	2.806	53.306 mg/kg	0.00533 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		61 mg/kg	1.245	75.928 mg/kg	0.00759 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		10 mg/kg		10 mg/kg	0.001 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.51	pH		7.51	pH	7.51 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				0.22	mg/kg		0.22	mg/kg	0.000022 %	✓	
			205-912-4	206-44-0									
30		pyrene				0.19	mg/kg		0.19	mg/kg	0.000019 %	✓	
			204-927-3	129-00-0									
31		benzo[a]anthracene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				27	mg/kg	1.785	48.2	mg/kg	0.00482 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.032 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: BH KTB022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB022
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21 mg/kg		21 mg/kg	0.0021 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		1 mg/kg	1.5	1.5 mg/kg	0.00015 %	✓	
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		42 mg/kg	1.245	52.278 mg/kg	0.00523 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		16 mg/kg		16 mg/kg	0.0016 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
22		pH				6.76	pH		6.76	pH	6.76 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
27		phenanthrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
29		fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
			205-912-4	206-44-0									
30		pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			204-927-3	129-00-0									
31		benzo[a]anthracene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				0.17	mg/kg		0.17	mg/kg	0.000017 %	✓	
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0186 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0016%)

Classification of sample: TP KTB018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB018	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	24 mg/kg		24 mg/kg	0.0024 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		9 mg/kg		9 mg/kg	0.0009 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.68	pH		6.68	pH	6.68 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				14	mg/kg	1.785	24.993	mg/kg	0.0025 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0164 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0009%)

Classification of sample: TP KTB018[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB018[2]
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.5	pH		6.5	pH	6.5 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.00942 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case available species

antimony {antimony trioxide}

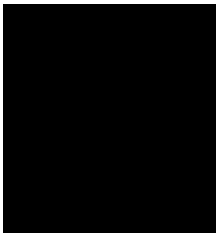
Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.246.4869.9247 (05 Sep 2021)
HazWasteOnline Database: 2021.246.4869.9247 (05 Sep 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report



HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 KTB - Natural Soils

Description/Comments

63 total samples of natural soils, consisting 28 granular and 35 cohesive samples taken from around the existing A66 as part of upgrade design works.

Project

A66 NTP

Site

Temple Sowerby to Appleby – Kirkby Thore

Classified by

Name:
Jennifer Morley
Date:
19 Oct 2021 14:02 GMT
Telephone:
[redacted]

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP KTB001	0.7	Non Hazardous		3
2	TP KTB002	0.6	Non Hazardous		5
3	TP KTB002[2]	1.2	Non Hazardous		7
4	TP KTB003	0.5	Non Hazardous		9
5	TP KTB004	0.5	Non Hazardous		12
6	TP KTB004[2]	1.2	Non Hazardous		15
7	TP KTB005	2.5	Non Hazardous		17
8	TP KTB006	0.6	Non Hazardous		20
9	TP KTB007	0.6	Non Hazardous		22
10	TP KTB007[2]	1.5	Non Hazardous		24
11	TP KTB009	0.4	Non Hazardous		26
12	TP KTB009[2]	0.8	Non Hazardous		29
13	TP KTB010	0.5	Non Hazardous		32
14	TP KTB010[2]	2.5	Non Hazardous		34
15	TP KTB011	0.5	Non Hazardous		37
16	TP KTB011[2]	2	Non Hazardous		40
17	TP KTB023	0.2	Non Hazardous		42
18	TP KTB013	2.5	Non Hazardous		45
19	TP KTB014	3.5	Non Hazardous		47
20	TP KTB017	2.5	Non Hazardous		49
21	TP KTB019	2	Non Hazardous		51
22	TP KTB022	0.6	Non Hazardous		54
23	TP KTB022[2]	2.9	Non Hazardous		57
24	TP KTB023[2]	0.6	Non Hazardous		59
25	TP KTB023[3]	1.6	Non Hazardous		62
26	TP KTB024	1.7	Non Hazardous		64
27	TP KTB024[2]	2.6	Non Hazardous		66
28	BH KTB001	1	Non Hazardous		68
29	BH KTB002	1.5	Non Hazardous		70
30	BH KTB003	1.5	Non Hazardous		73
31	BH KTB004	0.5	Non Hazardous		75
32	BH KTB005	1.5	Non Hazardous		78
33	BH KTB006	1.1	Non Hazardous		81
34	BH KTB007	1.5	Non Hazardous		83

Related documents

#	Name	Description
1	E01. geoenvironmental results (KTB).pdf	Document attached to Job: A66 KTB - Natural Soils
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 19 Oct 2021 14:02 GMT

Classification of sample: TP KTB001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB001	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.7 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22 mg/kg	1.245	27.384 mg/kg	0.00274 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		15 mg/kg		15 mg/kg	0.0015 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		6.62	pH		6.62	pH	6.62 pH		
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0142 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0015%)

Classification of sample: TP KTB002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB002	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.6 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.5	pH		6.5	pH	6.5 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0109 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB002[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB002[2]
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.74	pH		6.74	pH	6.74 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0123 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB003	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		29 mg/kg	1.245	36.097 mg/kg	0.00361 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.76	pH		6.76	pH	6.76 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				21	mg/kg	1.785	37.489	mg/kg	0.00375 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0189 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB004
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		19 mg/kg	1.245	23.65 mg/kg	0.00236 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				5.75	pH		5.75	pH	5.75 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				13	mg/kg	1.785	23.207	mg/kg	0.00232 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0126 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP KTB004[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB004[2]
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		31 mg/kg	1.245	38.586 mg/kg	0.00386 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				5.72	pH		5.72	pH	5.72 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				15	mg/kg	1.785	26.778	mg/kg	0.00268 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0156 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB005	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
2.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4 mg/kg	1.462	5.846 mg/kg	0.000585 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1 mg/kg	1.126	<1.126 mg/kg	<0.000113 %		<LOD
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	2 mg/kg		2 mg/kg	0.0002 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2 mg/kg	2.806	5.611 mg/kg	0.000561 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		<5 mg/kg	1.245	<6.224 mg/kg	<0.000622 %		<LOD
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.9	pH		6.9	pH	6.9 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				7	mg/kg	1.785	12.496	mg/kg	0.00125 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.00652 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB006
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5 mg/kg		5 mg/kg	0.0005 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.61	pH		6.61	pH	6.61 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0108 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB007
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.39	pH		6.39	pH	6.39 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.00889 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB007[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB007[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		7 mg/kg		7 mg/kg	0.0007 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.6 mg/kg	2.775	1.665 mg/kg	0.000167 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.94	pH		6.94	pH	6.94 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	39.274	mg/kg	0.00393 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0171 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB009
Sample Depth:
0.4 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21 mg/kg		21 mg/kg	0.0021 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		33 mg/kg	1.245	41.076 mg/kg	0.00411 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		12 mg/kg		12 mg/kg	0.0012 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.12	pH		7.12	pH	7.12 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				13	mg/kg	1.785	23.207	mg/kg	0.00232 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0167 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0012%)

Classification of sample: TP KTB009[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB009[2]
Sample Depth:
0.8 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.22	pH		7.22	pH	7.22 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0108 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB010
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.7 mg/kg	2.775	1.943 mg/kg	0.000194 %	✓	
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		1 mg/kg	1.5	1.5 mg/kg	0.00015 %	✓	
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
14	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		pH				7.3	pH		7.3	pH	7.3 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	39.274	mg/kg	0.00393 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0182 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB010[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB010[2]
Sample Depth:
2.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.9	mg/kg	2.775	2.498	mg/kg	0.00025 %	✓	
3		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
4		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5	mg/kg	1.142	0.571	mg/kg	0.0000571 %	✓	
5		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		26	mg/kg	1.462	38	mg/kg	0.0038 %	✓	
6		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
7		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		45	mg/kg	1.126	50.665	mg/kg	0.00507 %	✓	
8		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		12	mg/kg	0.0012 %	✓	
9		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	0.34	mg/kg		0.34	mg/kg	0.000034 %	✓	
10		molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1	mg/kg	1.5	<1.5	mg/kg	<0.00015 %		<LOD
11		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		28	mg/kg	2.806	78.556	mg/kg	0.00786 %	✓	
12		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1	mg/kg	2.351	2.351	mg/kg	0.000235 %	✓	
13		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		39	mg/kg	1.245	48.544	mg/kg	0.00485 %	✓	
14		TPH (C6 to C40) petroleum group			TPH		1	mg/kg		1	mg/kg	0.0001 %	✓	
15		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene											
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
21		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
22		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
23		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
24		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
25		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
26		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
27		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
28		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
29		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
30		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
31		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
32		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
33		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
34		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
35		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
36		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
37		vanadium { divanadium pentaoxide; vanadium pentoxide }				25	mg/kg	1.785	44.63	mg/kg	0.00446 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0289 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: TP KTB011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB011
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5 mg/kg		5 mg/kg	0.0005 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		45 mg/kg	2.775	124.89 mg/kg	0.0125 %	✓	
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23 mg/kg	1.462	33.616 mg/kg	0.00336 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
14	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		pH				7.27	pH		7.27	pH	7.27 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		phenol				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	39.274	mg/kg	0.00393 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0315 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB011[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB011[2]
Sample Depth:
2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1 mg/kg	1.126	<1.126 mg/kg	<0.000113 %		<LOD
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3 mg/kg		3 mg/kg	0.0003 %	✓	
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		<1 mg/kg	2.806	<2.806 mg/kg	<0.000281 %		<LOD
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		<5 mg/kg	1.245	<6.224 mg/kg	<0.000622 %		<LOD
14	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		pH				7.14	pH		7.14	pH	7.14 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				9	mg/kg	1.785	16.067	mg/kg	0.00161 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.00551 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB023

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB023
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	26 mg/kg		26 mg/kg	0.0026 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34 mg/kg	1.245	42.32 mg/kg	0.00423 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		22 mg/kg		22 mg/kg	0.0022 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.2	pH		6.2	pH	6.2 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				19	mg/kg	1.785	33.919	mg/kg	0.00339 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.02 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0022%)

Classification of sample: TP KTB013

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB013
Sample Depth:
2.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.6 mg/kg	2.775	1.665 mg/kg	0.000167 %	✓	
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		24 mg/kg	2.806	67.334 mg/kg	0.00673 %	✓	
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
14	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
22		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
23		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
24		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
25		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
26		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
27		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
28		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
29		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
30		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
31		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
32		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
33		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
34		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
35		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
36		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
37		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0201 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB014	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
3.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
14	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
22		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
23		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
24		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
25		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
26		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
27		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
28		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
29		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
30		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
31		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
32		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
33		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
34		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
35		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
36		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
37		vanadium { divanadium pentaoxide; vanadium pentoxide }				12	mg/kg	1.785	21.422	mg/kg	0.00214 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0129 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB017	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
2.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.8 mg/kg	2.775	2.22 mg/kg	0.000222 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		24 mg/kg	1.462	35.077 mg/kg	0.00351 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	18.014 mg/kg	0.0018 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	0.26 mg/kg		0.26 mg/kg	0.000026 %	✓	
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		22 mg/kg	2.806	61.722 mg/kg	0.00617 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		32 mg/kg	1.245	39.831 mg/kg	0.00398 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				8.34	pH		8.34	pH	8.34 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				19	mg/kg	1.785	33.919	mg/kg	0.00339 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0219 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB019	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<**LOD**
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		1 mg/kg		1 mg/kg	0.0001 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
19		ethylbenzene 601-023-00-4 / 202-849-4 / 100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
20		xylene 601-022-00-9 / 202-422-2 [1], 203-396-5 [2], 203-576-3 [3], 215-535-7 [4] / 95-47-6 [1], 106-42-3 [2], 108-38-3 [3], 1330-20-7 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5		<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
22		pH PH		6.32 pH		6.32 pH	6.32 pH		
23		naphthalene 601-052-00-2 / 202-049-5 / 91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
24		acenaphthylene 205-917-1 / 208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25		acenaphthene 201-469-6 / 83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
26		fluorene 201-695-5 / 86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
27		phenanthrene 201-581-5 / 85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
28		anthracene 204-371-1 / 120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
29		fluoranthene 205-912-4 / 206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
30		pyrene 204-927-3 / 129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
31		benzo[a]anthracene 601-033-00-9 / 200-280-6 / 56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
32		chrysene 601-048-00-0 / 205-923-4 / 218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
33		benzo[b]fluoranthene 601-034-00-4 / 205-911-9 / 205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
34		benzo[k]fluoranthene 601-036-00-5 / 205-916-6 / 207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
35		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3 / 200-028-5 / 50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
36		indeno[123-cd]pyrene 205-893-2 / 193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
37		dibenz[a,h]anthracene 601-041-00-2 / 200-181-8 / 53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
38		benzo[ghi]perylene 205-883-8 / 191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
39		phenol 604-001-00-2 / 203-632-7 / 108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
40		vanadium { divanadium pentaoxide; vanadium pentoxide } 023-001-00-8 / 215-239-8 / 1314-62-1		15 mg/kg	1.785	26.778 mg/kg	0.00268 %	✓	
						Total:	0.0152 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: TP KTB022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB022
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17 mg/kg	1.245	21.16 mg/kg	0.00212 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.68	pH		6.68	pH	6.68 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				16	mg/kg	1.785	28.563	mg/kg	0.00286 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0149 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB022[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB022[2]
Sample Depth:
2.9 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.3	pH		7.3	pH	7.3 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				14	mg/kg	1.785	24.993	mg/kg	0.0025 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0145 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB023[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB023[2]
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17 mg/kg	1.245	21.16 mg/kg	0.00212 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.92	pH		6.92	pH	6.92 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0167 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB023[3]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB023[3]
Sample Depth:
1.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.6 mg/kg	2.775	1.665 mg/kg	0.000167 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		17 mg/kg	2.806	47.695 mg/kg	0.00477 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27 mg/kg	1.245	33.607 mg/kg	0.00336 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.03	pH		7.03	pH	7.03 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				23	mg/kg	1.785	41.059	mg/kg	0.00411 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0189 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB024

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB024
Sample Depth:
1.7 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27 mg/kg	1.245	33.607 mg/kg	0.00336 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				8.29	pH		8.29	pH	8.29 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				17	mg/kg	1.785	30.348	mg/kg	0.00303 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0164 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTB024[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTB024[2]
Sample Depth:
2.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.6 mg/kg	2.775	1.665 mg/kg	0.000167 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				8.39	pH		8.39	pH	8.39 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0137 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB001
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		7 mg/kg		7 mg/kg	0.0007 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		1.1 mg/kg	1.142	1.257 mg/kg	0.000126 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		93 mg/kg	1.462	135.925 mg/kg	0.0136 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		39 mg/kg	1.126	43.91 mg/kg	0.00439 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	7 mg/kg		7 mg/kg	0.0007 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		47 mg/kg	2.806	131.862 mg/kg	0.0132 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		73 mg/kg	1.245	90.864 mg/kg	0.00909 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		2 mg/kg		2 mg/kg	0.0002 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.76	pH		7.76	pH	7.76 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				0.01	mg/kg		0.01	mg/kg	0.000001 %	✓	
			201-469-6	83-32-9									
22		fluorene				0.01	mg/kg		0.01	mg/kg	0.000001 %	✓	
			201-695-5	86-73-7									
23		phenanthrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			201-581-5	85-01-8									
24		anthracene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			204-371-1	120-12-7									
25		fluoranthene				0.21	mg/kg		0.21	mg/kg	0.000021 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-883-8	191-24-2									
										Total:	0.0429 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH KTB002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB002
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10 mg/kg	1.245	12.447 mg/kg	0.00124 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0105 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely

to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: BH KTB003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB003
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.21	pH		7.21	pH	7.21 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				26	mg/kg	1.785	46.415	mg/kg	0.00464 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0184 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB004
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14 mg/kg		14 mg/kg	0.0014 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				5.69	pH		5.69	pH	5.69 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	32.133	mg/kg	0.00321 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0158 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: BH KTB005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB005
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21 mg/kg		21 mg/kg	0.0021 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		29 mg/kg	1.245	36.097 mg/kg	0.00361 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.26	pH		6.26	pH	6.26 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				14	mg/kg	1.785	24.993	mg/kg	0.0025 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0148 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: BH KTB006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB006
Sample Depth:
1.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12 mg/kg		12 mg/kg	0.0012 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		19 mg/kg	1.245	23.65 mg/kg	0.00236 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.65	pH		6.65	pH	6.65 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00932 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB007
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		7 mg/kg		7 mg/kg	0.0007 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.2 mg/kg	2.775	3.33 mg/kg	0.000333 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<1 mg/kg	1.142	<1.142 mg/kg	<0.000114 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		34 mg/kg	1.462	49.693 mg/kg	0.00497 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	18.014 mg/kg	0.0018 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		29 mg/kg	2.806	81.361 mg/kg	0.00814 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		42 mg/kg	1.245	52.278 mg/kg	0.00523 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		9 mg/kg		9 mg/kg	0.0009 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.52	pH		7.52	pH	7.52 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				9	mg/kg	1.785	16.067	mg/kg	0.00161 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0267 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0009%)

Classification of sample: BH KTB007A

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB007A
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17 mg/kg		17 mg/kg	0.0017 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		36 mg/kg	1.245	44.81 mg/kg	0.00448 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		14 mg/kg		14 mg/kg	0.0014 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21	●	pH				6.39	pH		6.39	pH	6.39 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26	●	phenanthrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			201-581-5	85-01-8									
27	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28	●	fluoranthene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			205-912-4	206-44-0									
29	●	pyrene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			204-927-3	129-00-0									
30		benzo[a]anthracene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-032-00-3	200-028-5	50-32-8									
35	●	indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37	●	benzo[ghi]perylene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				32	mg/kg	1.785	57.126	mg/kg	0.00571 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0221 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0014%)

Classification of sample: BH KTB007A[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB007A[2]
Sample Depth:
1.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.9 mg/kg	2.775	2.498 mg/kg	0.00025 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		29 mg/kg	1.462	42.385 mg/kg	0.00424 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		24 mg/kg	2.806	67.334 mg/kg	0.00673 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		36 mg/kg	1.245	44.81 mg/kg	0.00448 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		3 mg/kg		3 mg/kg	0.0003 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.71	pH		7.71	pH	7.71 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0204 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: BH KTB008

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB008
Sample Depth:
0.4 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		3 mg/kg		3 mg/kg	0.0003 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.26	pH		7.26	pH	7.26 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.00947 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: BH KTB009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB009
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		23 mg/kg		23 mg/kg	0.0023 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.84	pH		6.84	pH	6.84 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				13	mg/kg	1.785	23.207	mg/kg	0.00232 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0154 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0023%)

Classification of sample: BH KTB009[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB009[2]
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17 mg/kg	1.245	21.16 mg/kg	0.00212 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.63	pH		6.63	pH	6.63 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00952 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB011
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14 mg/kg		14 mg/kg	0.0014 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.2	pH		6.2	pH	6.2 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				30	mg/kg	1.785	53.556	mg/kg	0.00536 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0158 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB012
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
22		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
23		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
24		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
25		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
26		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
27		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
28		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
29		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
30		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
31		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
32		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
33		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
34		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
35		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
36		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
37		vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	39.274	mg/kg	0.00393 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0119 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB013

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB013
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.49	pH		6.49	pH	6.49 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				12	mg/kg	1.785	21.422	mg/kg	0.00214 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0124 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB015
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		1 mg/kg		1 mg/kg	0.0001 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.17	pH		7.17	pH	7.17 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				23	mg/kg	1.785	41.059	mg/kg	0.00411 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0189 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: BH KTB016A

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB016A
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.6 mg/kg	2.775	1.665 mg/kg	0.000167 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		22 mg/kg	1.462	32.154 mg/kg	0.00322 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13 mg/kg	1.126	14.637 mg/kg	0.00146 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12 mg/kg		12 mg/kg	0.0012 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		28 mg/kg	1.245	34.852 mg/kg	0.00349 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21	●	pH				7.57	pH		7.57	pH	7.57 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				21	mg/kg	1.785	37.489	mg/kg	0.00375 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0195 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB017	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19	●	ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21	●	pH				6.73	pH		6.73	pH	6.73 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				19	mg/kg	1.785	33.919	mg/kg	0.00339 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0119 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB017[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB017[2]
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.77	pH		6.77	pH	6.77 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0124 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB018

Sample Depth:
0.5 m

LoW Code:

Chapter:
17: Construction and Demolition Wastes (including excavated soil from contaminated sites)

Entry:
17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.18	pH		6.18	pH	6.18 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				21	mg/kg	1.785	37.489	mg/kg	0.00375 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0157 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH KTB018[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB018[2]
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17 mg/kg	1.245	21.16 mg/kg	0.00212 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.61	pH		6.61	pH	6.61 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				23	mg/kg	1.785	41.059	mg/kg	0.00411 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0167 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH KTB019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB019
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4 mg/kg		4 mg/kg	0.0004 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		9 mg/kg	1.245	11.202 mg/kg	0.00112 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.32	pH		7.32	pH	7.32 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				15	mg/kg	1.785	26.778	mg/kg	0.00268 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.00991 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB020

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB020
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11 mg/kg	1.245	13.692 mg/kg	0.00137 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.12	pH		7.12	pH	7.12 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				8	mg/kg	1.785	14.281	mg/kg	0.00143 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.00831 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH KTB020[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB020[2]
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9 mg/kg	2.806	25.25 mg/kg	0.00253 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.13	pH		7.13	pH	7.13 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				14	mg/kg	1.785	24.993	mg/kg	0.0025 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0124 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB021 mining

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB021 mining
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.6 mg/kg	2.775	1.665 mg/kg	0.000167 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		25 mg/kg	1.462	36.539 mg/kg	0.00365 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		35 mg/kg	1.245	43.565 mg/kg	0.00436 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		3 mg/kg		3 mg/kg	0.0003 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
22		pH				7.05	pH		7.05	pH	7.05 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0195 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: BH KTB021 mining[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB021 mining[2]
Sample Depth:
0.9 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.27	pH		7.27	pH	7.27 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				14	mg/kg	1.785	24.993	mg/kg	0.0025 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.012 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB022
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		21 mg/kg	2.806	58.917 mg/kg	0.00589 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		37 mg/kg	1.245	46.054 mg/kg	0.00461 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				7.24	pH		7.24	pH	7.24 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		vanadium { divanadium pentaoxide; vanadium pentoxide }				12	mg/kg	1.785	21.422	mg/kg	0.00214 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0176 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB023

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB023
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.7 mg/kg	2.775	1.943 mg/kg	0.000194 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23 mg/kg	1.462	33.616 mg/kg	0.00336 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13 mg/kg	1.126	14.637 mg/kg	0.00146 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22 mg/kg	1.245	27.384 mg/kg	0.00274 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.78	pH		7.78	pH	7.78 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				16	mg/kg	1.785	28.563	mg/kg	0.00286 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0177 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB024

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB024
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.3 mg/kg	2.775	3.608 mg/kg	0.000361 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1 mg/kg	1.142	1.142 mg/kg	0.000114 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		40 mg/kg	1.462	58.462 mg/kg	0.00585 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1 mg/kg	1.126	<1.126 mg/kg	<0.000113 %		<LOD
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	40 mg/kg		40 mg/kg	0.004 %	✓	
10	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		16 mg/kg	2.749	43.977 mg/kg	0.0044 %	✓	
11	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
12	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
13	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		38 mg/kg	2.806	106.611 mg/kg	0.0107 %	✓	
14	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
15	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		48 mg/kg	1.245	59.746 mg/kg	0.00597 %	✓	
16	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
17	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
20		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
21		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
22		pH				7.77	pH		7.77	pH	7.77 pH		
				PH									
23		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				41	mg/kg	1.785	73.193	mg/kg	0.00732 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0409 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB025

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB025
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		25 mg/kg	2.775	69.384 mg/kg	0.00694 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<0.5 mg/kg	3.22	<1.61 mg/kg	<0.000161 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<1 mg/kg	1.142	<1.142 mg/kg	<0.000114 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		<0.5 mg/kg	1.462	<0.731 mg/kg	<0.0000731 %		<LOD
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4 mg/kg		4 mg/kg	0.0004 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.38	pH		6.38	pH	6.38 pH		
				PH									
22		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0135 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB026

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB026
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		95 mg/kg	2.775	263.658 mg/kg	0.0264 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		0.9 mg/kg	3.22	2.898 mg/kg	0.00029 %	✓	
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<1 mg/kg	1.142	<1.142 mg/kg	<0.000114 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		0.7 mg/kg	1.462	1.023 mg/kg	0.000102 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13 mg/kg	1.126	14.637 mg/kg	0.00146 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		26 mg/kg	2.806	72.945 mg/kg	0.00729 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.87	pH		7.87	pH	7.87 pH		
				PH									
22		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0418 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB027

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB027
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.66	pH		7.66	pH	7.66 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				23	mg/kg	1.785	41.059	mg/kg	0.00411 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0147 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KT028

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KT028
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12 mg/kg		12 mg/kg	0.0012 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		3 mg/kg		3 mg/kg	0.0003 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
22		pH				6.73	pH		6.73	pH	6.73 pH		
				PH									
23		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
24		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
25		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
26		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
27		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
28		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
29		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
30		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
31		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
32		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
33		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
34		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
35		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
36		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
37		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
38		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
39		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
40		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
41		vanadium { divanadium pentaoxide; vanadium pentoxide }				10	mg/kg	1.785	17.852	mg/kg	0.00179 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0132 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: BH KTB028

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTB028	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<**LOD**
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<**LOD**
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6 mg/kg		6 mg/kg	0.0006 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<**LOD**
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		19 mg/kg	1.245	23.65 mg/kg	0.00236 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		4 mg/kg		4 mg/kg	0.0004 %	✓	
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
19		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
20		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
21		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
22		pH			PH		7.68	pH		7.68	pH	7.68 pH		
23		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
24		acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
25		acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
26		fluorene		201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
27		phenanthrene		201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
28		anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
29		fluoranthene		205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
30		pyrene		204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
31		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
32		chrysene	601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
33		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
35		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
36		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
37		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
38		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
39		phenol	604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
40		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		15	mg/kg	1.785	26.778	mg/kg	0.00268 %	✓	
											Total:	0.012 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: BH KTB036

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB036
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				6.9	pH		6.9	pH	6.9 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		vanadium { divanadium pentaoxide; vanadium pentoxide }				17	mg/kg	1.785	30.348	mg/kg	0.00303 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0115 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTB036[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTB036[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<5 mg/kg	1.197	<5.986 mg/kg	<0.000599 %		<LOD
2	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.6 mg/kg	2.775	1.665 mg/kg	0.000167 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
7	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
9	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
10	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
11	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
12	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
13	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
14	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
15	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
16	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
20		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
21		pH				7.3	pH		7.3	pH	7.3 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0116 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium [redacted]. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: [redacted]
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case available species

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

manganese {manganese sulphate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.246.4869.9247 (05 Sep 2021)
HazWasteOnline Database: 2021.246.4869.9247 (05 Sep 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

D.7 KTA HazWasteOnline™ Report

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 KTA - TOPSOIL

Description/Comments

20 topsoil samples were taken from fields around the existing A66 between Kirkby Thore and Appleby around Crackenthorpe. The samples were taken to inform design of A66 upgrade works.

Project

A66 NTP

Site

Temple Sowerby to Appleby – Crackenthorpe

Classified by

Name:
Jennifer Morley
Date:
19 Oct 2021 13:09 GMT
Telephone:
[redacted]

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP KTA002	0.2	Non Hazardous		2
2	TP KTA004	0.2	Non Hazardous		5
3	TP KTA005	0.2	Non Hazardous		8
4	TP KTA006	0.2	Non Hazardous		11
5	TPKTA010	0.2	Non Hazardous		14
6	TP KTA011	0.2	Non Hazardous		16
7	TP KTA012	0.2	Non Hazardous		19
8	TP KTA018	0.2	Non Hazardous		22
9	BH KTA004	0.3	Non Hazardous		24
10	BH KTA006	0.3	Non Hazardous		27
11	BH KTA007	0.2	Non Hazardous		30
12	BH KTA008	0.2	Non Hazardous		33
13	BH KTA009	0.2	Non Hazardous		36
14	BH KTA010	0.2	Non Hazardous		38
15	BH KTA011	0.2	Non Hazardous		40
16	BH KTA018	0.3	Non Hazardous		42
17	BH KTA012	0.1	Non Hazardous		44
18	BH KTA021	0.3	Non Hazardous		46
19	TP KTA014	0.2	Non Hazardous		48
20	TP KTB017	0.2	Non Hazardous		51

Related documents

#	Name	Description
1	E02. geoenvironmental results (KTA).pdf	Document attached to Job: A66 KTA - TOPSOIL
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 19 Oct 2021 13:09 GMT

Classification of sample: TP KTA002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA002
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	23 mg/kg		23 mg/kg	0.0023 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		37 mg/kg	1.245	46.054 mg/kg	0.00461 %		
12	TPH (C6 to C40) petroleum group			TPH		70 mg/kg		70 mg/kg	0.007 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.11	pH		6.11	pH	6.11 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.02 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.007%)

Classification of sample: TP KTA004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP KTA004	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
0.2 m	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19 mg/kg		19 mg/kg	0.0019 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %		
12	TPH (C6 to C40) petroleum group			TPH		10 mg/kg		10 mg/kg	0.001 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		6.76	pH		6.76	pH	6.76 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.0119 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: TP KTA005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA005
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19 mg/kg		19 mg/kg	0.0019 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27 mg/kg	1.245	33.607 mg/kg	0.00336 %		
12	TPH (C6 to C40) petroleum group			TPH		5 mg/kg		5 mg/kg	0.0005 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.68	pH		5.68	pH	5.68 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0127 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP KTA006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTA006	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	12.385 mg/kg	0.00124 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	26 mg/kg		26 mg/kg	0.0026 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		41 mg/kg	1.245	51.033 mg/kg	0.0051 %		
12	TPH (C6 to C40) petroleum group			TPH		28 mg/kg		28 mg/kg	0.0028 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.39	pH		6.39	pH	6.39 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0182 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0028%)

Classification of sample: TPKTA010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TPKTA010
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10 mg/kg	2.806	28.056 mg/kg	0.00281 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27 mg/kg	1.245	33.607 mg/kg	0.00336 %		
12	TPH (C6 to C40) petroleum group			TPH		10 mg/kg		10 mg/kg	0.001 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				4.82	pH		4.82	pH	4.82 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0132 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: TP KTA011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA011
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		<0.5 mg/kg	2.775	<1.388 mg/kg	<0.000139 %		<LOD
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %		
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %		
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %		
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		18 mg/kg	0.0018 %		
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %		
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34 mg/kg	1.245	42.32 mg/kg	0.00423 %		
14	TPH (C6 to C40) petroleum group			TPH		17 mg/kg		17 mg/kg	0.0017 %		
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		pH				7.26	pH		7.26	pH	7.26 pH		
				PH									
22		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
23		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
24		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
25		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
26		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
27		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
28		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
29		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
30		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
31		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
32		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
33		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
34		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
35		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
36		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
37		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
38		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
39		vanadium { divanadium pentaoxide; vanadium pentoxide }				19	mg/kg	1.785	33.919	mg/kg	0.00339 %		
		023-001-00-8	215-239-8	1314-62-1									
										Total:	0.0176 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0017%)

Classification of sample: TP KTA012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTA012	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19 mg/kg		19 mg/kg	0.0019 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10 mg/kg	2.806	28.056 mg/kg	0.00281 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %		
12	TPH (C6 to C40) petroleum group			TPH		5 mg/kg		5 mg/kg	0.0005 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
19		pH 		PH		5.34 pH		5.34 pH	5.34 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene 	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
22		acenaphthene 	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
23		fluorene 	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
24		phenanthrene 	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
25		anthracene 	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
26		fluoranthene 	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<**LOD**
27		pyrene 	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<**LOD**
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
								Total:	0.0127 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP KTA018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA018
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	15 mg/kg		15 mg/kg	0.0015 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %		
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH 		PH		6.19	pH		6.19	pH	6.19 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene 	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene 	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene 	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene 	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene 	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene 	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene 	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
										Total:	0.0127 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA004
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %		
12	TPH (C6 to C40) petroleum group			TPH		11 mg/kg		11 mg/kg	0.0011 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.61	pH		5.61	pH	5.61 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				4.03	mg/kg		4.03	mg/kg	0.000403 %		
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00964 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0011%)

Classification of sample: BH KTA006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTA006	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.3 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %		
12	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH 		PH		5.7	pH		5.7	pH	5.7 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene 	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene 	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene 	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene 	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene 	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene 	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene 	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
										Total:	0.0127 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: BH KTA007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA007
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17 mg/kg		17 mg/kg	0.0017 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		28 mg/kg	1.245	34.852 mg/kg	0.00349 %		
12	TPH (C6 to C40) petroleum group			TPH		21 mg/kg		21 mg/kg	0.0021 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				5.88	pH		5.88	pH	5.88 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.0141 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0021%)

Classification of sample: BH KTA008

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH KTA008	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
0.2 m	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %		
12	TPH (C6 to C40) petroleum group			TPH		5 mg/kg		5 mg/kg	0.0005 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
19		pH 		PH		4.78 pH		4.78 pH	4.78 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene 	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
22		acenaphthene 	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
23		fluorene 	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
24		phenanthrene 	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
25		anthracene 	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
26		fluoranthene 	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<**LOD**
27		pyrene 	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
								Total:	0.0115 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: BH KTA009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA009
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17 mg/kg		17 mg/kg	0.0017 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %		
12	TPH (C6 to C40) petroleum group			TPH		11 mg/kg		11 mg/kg	0.0011 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.12	pH		5.12	pH	5.12 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0127 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0011%)

Classification of sample: BH KTA010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA010
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %		
12	TPH (C6 to C40) petroleum group			TPH		13 mg/kg		13 mg/kg	0.0013 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.44	pH		5.44	pH	5.44 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0118 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0013%)

Classification of sample: BH KTA011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA011
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21 mg/kg		21 mg/kg	0.0021 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %		
12	TPH (C6 to C40) petroleum group			TPH		12 mg/kg		12 mg/kg	0.0012 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.44	pH		6.44	pH	6.44 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0119 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0012%)

Classification of sample: BH KTA018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA018
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	16.888 mg/kg	0.00169 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	31 mg/kg		31 mg/kg	0.0031 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		43 mg/kg	1.245	53.523 mg/kg	0.00535 %		
12	TPH (C6 to C40) petroleum group			TPH		10 mg/kg		10 mg/kg	0.001 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.12	pH		6.12	pH	6.12 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
			205-912-4	206-44-0									
26		pyrene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			205-883-8	191-24-2									
										Total:	0.0161 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: BH KTA012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA012
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6 mg/kg		6 mg/kg	0.0006 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14 mg/kg	1.126	15.762 mg/kg	0.00158 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		41 mg/kg	1.245	51.033 mg/kg	0.0051 %		
12	TPH (C6 to C40) petroleum group			TPH		27 mg/kg		27 mg/kg	0.0027 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.68	pH		6.68	pH	6.68 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0183 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0027%)

Classification of sample: BH KTA021

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA021
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12 mg/kg		12 mg/kg	0.0012 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22 mg/kg	1.245	27.384 mg/kg	0.00274 %		
12	TPH (C6 to C40) petroleum group			TPH		29 mg/kg		29 mg/kg	0.0029 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
			201-469-6	83-32-9									
22		fluorene				0.21	mg/kg		0.21	mg/kg	0.000021 %		
			201-695-5	86-73-7									
23		phenanthrene				0.24	mg/kg		0.24	mg/kg	0.000024 %		
			201-581-5	85-01-8									
24		anthracene				0.25	mg/kg		0.25	mg/kg	0.000025 %		
			204-371-1	120-12-7									
25		fluoranthene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			205-912-4	206-44-0									
26		pyrene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.22	mg/kg		0.22	mg/kg	0.000022 %		
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				0.14	mg/kg		0.14	mg/kg	0.000014 %		
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.32	mg/kg		0.32	mg/kg	0.000032 %		
			205-883-8	191-24-2									
										Total:	0.014 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0029%)

Classification of sample: TP KTA014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA014
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14 mg/kg		14 mg/kg	0.0014 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %		
12	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		7 mg/kg	0.0007 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				6.5	pH		6.5	pH	6.5 pH		
				PH									
20		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0125 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP KTB017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTB017	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %		
12	TPH (C6 to C40) petroleum group			TPH		12 mg/kg		12 mg/kg	0.0012 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.82	pH		5.82	pH	5.82 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0112 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0012%)

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: [redacted]
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case available species

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.246.4869.9247 (05 Sep 2021)
HazWasteOnline Database: 2021.246.4869.9247 (05 Sep 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report

[redacted]

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 KTA - Made Ground

Description/Comments

19 Made Ground soil samples were taken from along the existing A66 and from surrounding land to inform design of hte upgrade works

Project

A66 NTP

Site

Temple Sowerby to Appleby – Crackenthorpe

Classified by

Name:
Jennifer Morley
Date:
19 Oct 2021 13:14 GMT
Telephone:
[redacted]

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP KTA008	0.1	Non Hazardous		2
2	TP KTA015	0.2	Non Hazardous		5
3	TP KTA016	0.5	Non Hazardous		8
4	TP KTA016[2]	0.9	Non Hazardous		10
5	TP KTA019	0.2	Non Hazardous		12
6	TP KTA019[2]	0.5	Non Hazardous		15
7	TP KTA020	0.2	Non Hazardous		18
8	BH KTA003	0.3	Non Hazardous		21
9	BH KTA005	0.3	Non Hazardous		23
10	BH KTA013	0.2	Non Hazardous		26
11	BH KTA014	0.2	Non Hazardous		29
12	BH KTA015	0.1	Non Hazardous		32
13	BH KTA020	0.2	Non Hazardous		35
14	BH KTA020[2]	0.5	Non Hazardous		38
15	BH KTA022	0.3	Non Hazardous		40
16	WS KTA001	0.1	Non Hazardous		43
17	WS KTA002	0.4	Non Hazardous		46
18	TP KTA013	0.2	Non Hazardous		48
19	TP KTA013[2]	0.5	Non Hazardous		51

Related documents

#	Name	Description
1	E02. geoenvironmental results (KTA).pdf	Document attached to Job: A66 KTA - Made Ground
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 19 Oct 2021 13:14 GMT

Classification of sample: TP KTA008

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA008
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		12 mg/kg		12 mg/kg	0.0012 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		142 mg/kg	1.126	159.876 mg/kg	0.016 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	43 mg/kg		43 mg/kg	0.0043 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		38 mg/kg	2.806	106.611 mg/kg	0.0107 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		55 mg/kg	1.245	68.459 mg/kg	0.00685 %		
12	TPH (C6 to C40) petroleum group			TPH		45 mg/kg		45 mg/kg	0.0045 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				7.72	pH		7.72	pH	7.72 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				0.02	mg/kg		0.02	mg/kg	0.000002 %		
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			201-581-5	85-01-8									
25		anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
			204-371-1	120-12-7									
26		fluoranthene				0.45	mg/kg		0.45	mg/kg	0.000045 %		
			205-912-4	206-44-0									
27		pyrene				0.39	mg/kg		0.39	mg/kg	0.000039 %		
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.26	mg/kg		0.26	mg/kg	0.000026 %		
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.34	mg/kg		0.34	mg/kg	0.000034 %		
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.38	mg/kg		0.38	mg/kg	0.000038 %		
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.26	mg/kg		0.26	mg/kg	0.000026 %		
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				0.05	mg/kg		0.05	mg/kg	0.000005 %		
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.13	mg/kg		0.13	mg/kg	0.000013 %		
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0473 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0045%)

Classification of sample: TP KTA015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTA015	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	1.028 mg/kg	0.000103 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	12.385 mg/kg	0.00124 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		18 mg/kg	0.0018 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		44 mg/kg	1.245	54.767 mg/kg	0.00548 %		
12	TPH (C6 to C40) petroleum group			TPH		15 mg/kg		15 mg/kg	0.0015 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		6.48	pH		6.48	pH	6.48 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.0193 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0015%)

Classification of sample: TP KTA016

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA016
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	1.028 mg/kg	0.000103 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %		
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.04	pH		6.04	pH	6.04 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0104 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA016[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA016[2]
Sample Depth:
0.9 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6 mg/kg		6 mg/kg	0.0006 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1 mg/kg	1.142	1.142 mg/kg	0.000114 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	0.41 mg/kg		0.41 mg/kg	0.000041 %		
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		19 mg/kg	2.806	53.306 mg/kg	0.00533 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %		
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.03	pH		8.03	pH	8.03 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0157 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA019
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5 mg/kg		5 mg/kg	0.0005 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.3 mg/kg	1.142	1.485 mg/kg	0.000149 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	16.888 mg/kg	0.00169 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12 mg/kg		12 mg/kg	0.0012 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		26 mg/kg	2.806	72.945 mg/kg	0.00729 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		60 mg/kg	1.245	74.683 mg/kg	0.00747 %		
12	TPH (C6 to C40) petroleum group			TPH		33 mg/kg		33 mg/kg	0.0033 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.84	pH		6.84	pH	6.84 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.03	mg/kg		0.03	mg/kg	0.000003 %		
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.05	mg/kg		0.05	mg/kg	0.000005 %		
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.05	mg/kg		0.05	mg/kg	0.000005 %		
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0258 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0033%)

[redacted]

Classification of sample: TP KTA019[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTA019[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		72 mg/kg	1.245	89.619 mg/kg	0.00896 %		
12	TPH (C6 to C40) petroleum group			TPH		13 mg/kg		13 mg/kg	0.0013 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
19		pH		PH		7.11 pH		7.11 pH	7.11 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
21		acenaphthylene	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22		acenaphthene	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23		fluorene	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24		phenanthrene	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
25		anthracene	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
26		fluoranthene	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
27		pyrene	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
								Total:	0.0182 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0013%)

Classification of sample: TP KTA020

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA020
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10 mg/kg	2.806	28.056 mg/kg	0.00281 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %		
12	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				6.3	pH		6.3	pH	6.3 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.012 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH KTA003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH KTA003	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
0.3 m	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12 mg/kg		12 mg/kg	0.0012 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22 mg/kg	1.245	27.384 mg/kg	0.00274 %		
12	TPH (C6 to C40) petroleum group			TPH		18 mg/kg		18 mg/kg	0.0018 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		6.85	pH		6.85	pH	6.85 pH		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
20		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
21		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
24		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
25		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
26		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
27		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
28		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
29		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
31		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
32		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
33		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
34		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
										Total:	0.0107 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0018%)

Classification of sample: BH KTA005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTA005	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.3 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19 mg/kg		19 mg/kg	0.0019 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		29 mg/kg	1.245	36.097 mg/kg	0.00361 %		
12	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		7 mg/kg	0.0007 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
19		pH 		PH		6.54 pH		6.54 pH	6.54 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
21		acenaphthylene 	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22		acenaphthene 	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23		fluorene 	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24		phenanthrene 	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
25		anthracene 	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
26		fluoranthene 	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
27		pyrene 	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
								Total:	0.0133 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: BH KTA013

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA013
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17 mg/kg		17 mg/kg	0.0017 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %		
12	TPH (C6 to C40) petroleum group			TPH		10 mg/kg		10 mg/kg	0.001 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.33	pH		6.33	pH	6.33 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0125 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: BH KTA014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTA014	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22 mg/kg	1.245	27.384 mg/kg	0.00274 %		
12	TPH (C6 to C40) petroleum group			TPH		13 mg/kg		13 mg/kg	0.0013 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
		006-007-00-5									
19		pH				6.08 pH		6.08 pH	6.08 pH		
				PH							
20		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3							
21		acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8							
22		acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9							
23		fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7							
24		phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8							
25		anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7							
26		fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0							
27		pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0							
28		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3							
29		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9							
30		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2							
31		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9							
32		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8							
33		indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5							
34		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3							
35		benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2							
36		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2							
								Total:	0.0101 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0013%)

Classification of sample: BH KTA015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA015
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %		
12	TPH (C6 to C40) petroleum group			TPH		11 mg/kg		11 mg/kg	0.0011 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.89	pH		5.89	pH	5.89 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				1.03	mg/kg		1.03	mg/kg	0.000103 %		
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.0112 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0011%)

Classification of sample: BH KTA020

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTA020	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21 mg/kg		21 mg/kg	0.0021 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27 mg/kg	1.245	33.607 mg/kg	0.00336 %		
12	TPH (C6 to C40) petroleum group			TPH		14 mg/kg		14 mg/kg	0.0014 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.89	pH		5.89	pH	5.89 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				0.9	mg/kg		0.9	mg/kg	0.00009 %		
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0151 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0014%)

Classification of sample: BH KTA020[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA020[2]
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14 mg/kg	2.806	39.278 mg/kg	0.00393 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %		
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.97	pH		6.97	pH	6.97 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0134 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA022
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14 mg/kg		14 mg/kg	0.0014 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %		
12	TPH (C6 to C40) petroleum group			TPH		19 mg/kg		19 mg/kg	0.0019 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				7.65	pH		7.65	pH	7.65 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.014 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0019%)

Classification of sample: WS KTA001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
WS KTA001	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.1 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22 mg/kg	1.245	27.384 mg/kg	0.00274 %		
12	TPH (C6 to C40) petroleum group			TPH		11 mg/kg		11 mg/kg	0.0011 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
19		pH		PH		5.22 pH		5.22 pH	5.22 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
21		acenaphthylene	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22		acenaphthene	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23		fluorene	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24		phenanthrene	201-581-5	85-01-8		2.03 mg/kg		2.03 mg/kg	0.000203 %		
25		anthracene	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
26		fluoranthene	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
27		pyrene	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
								Total:	0.0135 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0011%)

Classification of sample: WS KTA002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS KTA002
Sample Depth:
0.4 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %		
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1 mg/kg	2.351	2.351 mg/kg	0.000235 %		
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %		
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.98	pH		5.98	pH	5.98 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0131 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA013

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA013
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %		
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %		
12	TPH (C6 to C40) petroleum group			TPH		5 mg/kg		5 mg/kg	0.0005 %		
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.58	pH		6.58	pH	6.58 pH		
				PH									
20		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.011 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP KTA013[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA013[2]
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %		
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %		
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %		
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %		
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %		
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.98	pH		6.98	pH	6.98 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00843 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: [redacted]
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.246.4869.9247 (05 Sep 2021)
HazWasteOnline Database: 2021.246.4869.9247 (05 Sep 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 KTA - Natural Soils

Description/Comments

44 natural soil samples were taken from along the existing A66 and surrounding fields, the material sampled consists of 9 granular soil samples and 35 cohesive samples.

Project

A66 NTP

Site

Temple Sowerby to Appleby – Crackenthorpe

Classified by

Name:
Jennifer Morley
Date:
25 Nov 2021 16:14 GMT
Telephone:
[redacted]

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP KTA002	0.35	Non Hazardous		3
2	TP KTA003	0.3	Non Hazardous		6
3	TP KTA003[2]	2	Non Hazardous		9
4	TP KTA004	1	Non Hazardous		11
5	TP KTA005	0.5	Non Hazardous		13
6	TP KTA006	0.2	Non Hazardous		15
7	TP KTA006[2]	1.2	Non Hazardous		17
8	TP KTA007	0.5	Non Hazardous		19
9	TP KTA007[2]	1	Non Hazardous		22
10	TP KTA008	2.5	Non Hazardous		24
11	TP KTA009	0.9	Non Hazardous		26
12	TP KTA009[2]	3.2	Non Hazardous		28
13	TPKTA010	2.2	Non Hazardous		30
14	TP KTA011	1.5	Non Hazardous		32
15	TP KTA012	0.4	Non Hazardous		34
16	TP KTA015	0.6	Non Hazardous		36
17	TP KTA015[2]	1.5	Non Hazardous		38
18	TP KTA018	0.9	Non Hazardous		40
19	TP KTA019	1.2	Non Hazardous		42
20	TP KTA020	2.5	Non Hazardous		44
21	BH KTA003	1.5	Non Hazardous		46
22	BH KTA004	0.5	Non Hazardous		48
23	BH KTA004[2]	1.5	Non Hazardous		51
24	BH KTA005	1	Non Hazardous		53
25	BH KTA006	1.5	Non Hazardous		55
26	BH KTA007	1.2	Non Hazardous		57
27	BH KTA009	0.5	Non Hazardous		59
28	BH KTA010	1.2	Non Hazardous		61
29	BH KTA011	1.2	Non Hazardous		63
30	BH KTA013	1.2	Non Hazardous		65
31	BH KTA014	1.2	Non Hazardous		67
32	BH KTA015	1.2	Non Hazardous		69
33	BH KTA017	0.3	Non Hazardous		71
34	BH KTA017[2]	1	Non Hazardous		73

Related documents

#	Name	Description
1	E02. geoenvironmental results (KTA).pdf	Document attached to Job: A66 KTA - Natural Soils
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 25 Nov 2021 16:14 GMT

Classification of sample: TP KTA002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTA002	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.35 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12 mg/kg		12 mg/kg	0.0012 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9 mg/kg	2.806	25.25 mg/kg	0.00253 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		4 mg/kg		4 mg/kg	0.0004 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
19		pH		PH		6.09 pH		6.09 pH	6.09 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
21		acenaphthylene	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22		acenaphthene	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23		fluorene	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24		phenanthrene	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
25		anthracene	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
26		fluoranthene	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
27		pyrene	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
								Total:	0.0116 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: TP KTA003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA003
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.83	pH		5.83	pH	5.83 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0088 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP KTA003[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA003[2]
Sample Depth:
2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		26 mg/kg	1.462	38 mg/kg	0.0038 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		21 mg/kg	2.806	58.917 mg/kg	0.00589 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
19		pH		PH		5.85 pH		5.85 pH	5.85 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
21		acenaphthylene	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22		acenaphthene	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23		fluorene	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24		phenanthrene	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
25		anthracene	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
26		fluoranthene	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
27		pyrene	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
								Total:	0.0169 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA004
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH 		PH		6.81	pH		6.81	pH	6.81 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene 	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene 	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene 	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene 	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene 	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene 	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene 	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.0149 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA005
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.68	pH		6.68	pH	6.68 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0106 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTA006	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	12.385 mg/kg	0.00124 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	26 mg/kg		26 mg/kg	0.0026 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		41 mg/kg	1.245	51.033 mg/kg	0.0051 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		28 mg/kg		28 mg/kg	0.0028 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		6.39	pH		6.39	pH	6.39 pH		
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0172 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0028%)

Classification of sample: TP KTA006[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTA006[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4	mg/kg		4	mg/kg	0.0004 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18	mg/kg	1.462	26.308	mg/kg	0.00263 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13	mg/kg	1.126	14.637	mg/kg	0.00146 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11	mg/kg		11	mg/kg	0.0011 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13	mg/kg	2.806	36.472	mg/kg	0.00365 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21	mg/kg	1.245	26.139	mg/kg	0.00261 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.5	pH		6.5	pH	6.5 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0128 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP KTA007	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.91	pH		5.91	pH	5.91 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0106 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP KTA007[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA007[2]
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17	mg/kg	1.462	24.846	mg/kg	0.00248 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11	mg/kg	2.806	30.861	mg/kg	0.00309 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16	mg/kg	1.245	19.915	mg/kg	0.00199 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.03	pH		6.03	pH	6.03 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0113 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA008

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA008
Sample Depth:
2.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8	mg/kg	1.126	9.007	mg/kg	0.000901 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7	mg/kg		7	mg/kg	0.0007 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13	mg/kg	2.806	36.472	mg/kg	0.00365 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22	mg/kg	1.245	27.384	mg/kg	0.00274 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				8.88	pH		8.88	pH	8.88 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0125 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA009
Sample Depth:
0.9 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		17 mg/kg	2.806	47.695 mg/kg	0.00477 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.67	pH		5.67	pH	5.67 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0146 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA009[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA009[2]
Sample Depth:
3.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic } 033-001-00-X / 231-148-6 / 7440-38-2		6 mg/kg		6 mg/kg	0.0006 %	✓	
2		boron { diboron trioxide; boric oxide } 005-008-00-8 / 215-125-8 / 1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide } 048-002-00-0 / 215-146-2 / 1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) } 215-160-9 / 1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex } 082-001-00-6	1	12 mg/kg		12 mg/kg	0.0012 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex } 080-002-00-6	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate } 028-037-00-8 / 238-946-3 / 14874-78-3		17 mg/kg	2.806	47.695 mg/kg	0.00477 %	✓	
10		selenium { nickel(II) selenite } 028-048-00-8 / 233-263-7 / 10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide } 030-013-00-7 / 215-222-5 / 1314-13-2		26 mg/kg	1.245	32.363 mg/kg	0.00324 %	✓	
12		TPH (C6 to C40) petroleum group TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X / 216-653-1 / 1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		benzene 601-020-00-8 / 200-753-7 / 71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15		toluene 601-021-00-3 / 203-625-9 / 108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16		ethylbenzene 601-023-00-4 / 202-849-4 / 100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17		xylene 601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.25	pH		6.25	pH	6.25 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0149 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TPKTA010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TPKTA010
Sample Depth:
2.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5	mg/kg		5	mg/kg	0.0005 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8	mg/kg	1.142	0.914	mg/kg	0.0000914 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20	mg/kg	1.462	29.231	mg/kg	0.00292 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	10.133	mg/kg	0.00101 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10	mg/kg		10	mg/kg	0.001 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15	mg/kg	2.806	42.083	mg/kg	0.00421 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25	mg/kg	1.245	31.118	mg/kg	0.00311 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.71	pH		7.71	pH	7.71 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0138 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA011
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.5 mg/kg	2.775	1.388 mg/kg	0.000139 %	✓	
3	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	1.028 mg/kg	0.000103 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
6	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	12.385 mg/kg	0.00124 %	✓	
8	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
9	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
10	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		<1 mg/kg	1.5	<1.5 mg/kg	<0.00015 %		<LOD
11	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		18 mg/kg	2.806	50.5 mg/kg	0.00505 %	✓	
12	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		33 mg/kg	1.245	41.076 mg/kg	0.00411 %	✓	
14	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
19		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
20		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
21		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
22		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
23		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
24		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
25		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
26		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
27		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
28		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
29		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
30		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
31		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
32		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
33		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
34		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
35		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
36		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
37		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.0161 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA012
Sample Depth:
0.4 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6	mg/kg	1.142	0.685	mg/kg	0.0000685 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17	mg/kg	1.462	24.846	mg/kg	0.00248 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11	mg/kg		11	mg/kg	0.0011 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10	mg/kg	2.806	28.056	mg/kg	0.00281 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20	mg/kg	1.245	24.894	mg/kg	0.00249 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.5	pH		5.5	pH	5.5 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0103 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA015
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7	mg/kg	1.142	0.8	mg/kg	0.00008 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19	mg/kg	1.462	27.77	mg/kg	0.00278 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	10.133	mg/kg	0.00101 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8	mg/kg		8	mg/kg	0.0008 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12	mg/kg	2.806	33.667	mg/kg	0.00337 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		19	mg/kg	1.245	23.65	mg/kg	0.00236 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				7.43	pH		7.43	pH	7.43 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0126 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA015[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA015[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		3 mg/kg		3 mg/kg	0.0003 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	11 mg/kg		11 mg/kg	0.0011 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		16 mg/kg	2.806	44.889 mg/kg	0.00449 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		24 mg/kg	1.245	29.873 mg/kg	0.00299 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				7.45	pH		7.45	pH	7.45 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0146 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA018
Sample Depth:
0.9 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		26 mg/kg	1.462	38 mg/kg	0.0038 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	12.385 mg/kg	0.00124 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		16 mg/kg	2.806	44.889 mg/kg	0.00449 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.54	pH		6.54	pH	6.54 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0145 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA019
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7	mg/kg		7	mg/kg	0.0007 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		50	mg/kg	1.245	62.236	mg/kg	0.00622 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.03	pH		7.03	pH	7.03 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA020

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA020
Sample Depth:
2.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		25 mg/kg	1.462	36.539 mg/kg	0.00365 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	8 mg/kg		8 mg/kg	0.0008 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		20 mg/kg	2.806	56.111 mg/kg	0.00561 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		28 mg/kg	1.245	34.852 mg/kg	0.00349 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				7.94	pH		7.94	pH	7.94 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.0158 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA003
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		19 mg/kg	1.462	27.77 mg/kg	0.00278 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	7 mg/kg		7 mg/kg	0.0007 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		22 mg/kg	1.245	27.384 mg/kg	0.00274 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		8 mg/kg		8 mg/kg	0.0008 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.27	pH		8.27	pH	8.27 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0128 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0008%)

Classification of sample: BH KTA004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA004
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4	mg/kg	1.462	5.846	mg/kg	0.000585 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1	mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3	mg/kg		3	mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2	mg/kg	2.806	5.611	mg/kg	0.000561 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		<5	mg/kg	1.245	<6.224	mg/kg	<0.000622 %		<LOD
12		TPH (C6 to C40) petroleum group			TPH		2	mg/kg		2	mg/kg	0.0002 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.87	pH		5.87	pH	5.87 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00358 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH KTA004[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTA004[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8	mg/kg		8	mg/kg	0.0008 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<**LOD**
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		5.89	pH		5.89	pH	5.89 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		5.03	mg/kg		5.03	mg/kg	0.000503 %	✓	
25		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
										Total:	0.00703 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA005
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14 mg/kg	1.126	15.762 mg/kg	0.00158 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.6	pH		6.6	pH	6.6 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0122 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA006
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		24 mg/kg	1.245	29.873 mg/kg	0.00299 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.68	pH		7.68	pH	7.68 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0118 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTA007	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6 mg/kg		6 mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.75	pH		6.75	pH	6.75 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				3.03	mg/kg		3.03	mg/kg	0.000303 %	✓	
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00918 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA009
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		7 mg/kg		7 mg/kg	0.0007 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.87	pH		5.87	pH	5.87 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0109 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH KTA010	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		16 mg/kg	2.806	44.889 mg/kg	0.00449 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		26 mg/kg	1.245	32.363 mg/kg	0.00324 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.97	pH		6.97	pH	6.97 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0134 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA011
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		32 mg/kg	1.462	46.77 mg/kg	0.00468 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14 mg/kg		14 mg/kg	0.0014 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		21 mg/kg	2.806	58.917 mg/kg	0.00589 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		31 mg/kg	1.245	38.586 mg/kg	0.00386 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.86	pH		6.86	pH	6.86 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0186 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA013

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH KTA013	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
1.2 m	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5 mg/kg		5 mg/kg	0.0005 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22 mg/kg	1.245	27.384 mg/kg	0.00274 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.54	pH		6.54	pH	6.54 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0128 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA014
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	1.028 mg/kg	0.000103 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
19		pH 		PH		6.95 pH		6.95 pH	6.95 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
21		acenaphthylene 	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22		acenaphthene 	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23		fluorene 	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24		phenanthrene 	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
25		anthracene 	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
26		fluoranthene 	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
27		pyrene 	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
								Total:	0.0144 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA015
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.94	pH		6.94	pH	6.94 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0122 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA017
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.09	pH		6.09	pH	6.09 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				1.03	mg/kg		1.03	mg/kg	0.000103 %	✓	
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0129 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA017[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA017[2]
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6 mg/kg		6 mg/kg	0.0006 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		19 mg/kg	1.245	23.65 mg/kg	0.00236 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		1 mg/kg		1 mg/kg	0.0001 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.77	pH		8.77	pH	8.77 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0109 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: BH KTA018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA018
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6	mg/kg	1.142	0.685	mg/kg	0.0000685 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16	mg/kg	1.462	23.385	mg/kg	0.00234 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11	mg/kg	1.126	12.385	mg/kg	0.00124 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13	mg/kg		13	mg/kg	0.0013 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14	mg/kg	2.806	39.278	mg/kg	0.00393 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25	mg/kg	1.245	31.118	mg/kg	0.00311 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.81	pH		6.81	pH	6.81 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0131 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA019
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6	mg/kg	1.142	0.685	mg/kg	0.0000685 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		29	mg/kg	1.462	42.385	mg/kg	0.00424 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	13.511	mg/kg	0.00135 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		12	mg/kg	0.0012 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		20	mg/kg	2.806	56.111	mg/kg	0.00561 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		28	mg/kg	1.245	34.852	mg/kg	0.00349 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		2	mg/kg		2	mg/kg	0.0002 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.37	pH		7.37	pH	7.37 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0173 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH KTA022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA022
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5	mg/kg		5	mg/kg	0.0005 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6	mg/kg	1.142	0.685	mg/kg	0.0000685 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19	mg/kg	1.462	27.77	mg/kg	0.00278 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11	mg/kg	1.126	12.385	mg/kg	0.00124 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		12	mg/kg	0.0012 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15	mg/kg	2.806	42.083	mg/kg	0.00421 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		28	mg/kg	1.245	34.852	mg/kg	0.00349 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		3	mg/kg		3	mg/kg	0.0003 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.18	pH		8.18	pH	8.18 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0146 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: BH KTA017[3]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA017[3]
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic } 033-001-00-X / 231-148-6 / 7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide } 005-008-00-8 / 215-125-8 / 1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide } 048-002-00-0 / 215-146-2 / 1306-19-0		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) } 215-160-9 / 1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex } 082-001-00-6	1	10 mg/kg		10 mg/kg	0.001 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex } 080-002-00-6	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate } 028-037-00-8 / 238-946-3 / 14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
10		selenium { nickel(II) selenite } 028-048-00-8 / 233-263-7 / 10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide } 030-013-00-7 / 215-222-5 / 1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
12		TPH (C6 to C40) petroleum group TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X / 216-653-1 / 1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		benzene 601-020-00-8 / 200-753-7 / 71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15		toluene 601-021-00-3 / 203-625-9 / 108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16		ethylbenzene 601-023-00-4 / 202-849-4 / 100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17		xylene 601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.09	pH		6.09	pH	6.09 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0128 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA017[4]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA017[4]
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		3 mg/kg		3 mg/kg	0.0003 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	6 mg/kg		6 mg/kg	0.0006 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		19 mg/kg	1.245	23.65 mg/kg	0.00236 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		1 mg/kg		1 mg/kg	0.0001 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.77	pH		8.77	pH	8.77 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00989 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: BH KTA012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA012
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4	mg/kg		4	mg/kg	0.0004 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6	mg/kg	1.142	0.685	mg/kg	0.0000685 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17	mg/kg	1.462	24.846	mg/kg	0.00248 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	10.133	mg/kg	0.00101 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11	mg/kg		11	mg/kg	0.0011 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12	mg/kg	2.806	33.667	mg/kg	0.00337 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21	mg/kg	1.245	26.139	mg/kg	0.00261 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.42	pH		7.42	pH	7.42 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.012 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH KTA021

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH KTA021
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15	mg/kg	1.462	21.923	mg/kg	0.00219 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10	mg/kg		10	mg/kg	0.001 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10	mg/kg	2.806	28.056	mg/kg	0.00281 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18	mg/kg	1.245	22.405	mg/kg	0.00224 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		9	mg/kg		9	mg/kg	0.0009 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.8	pH		7.8	pH	7.8 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
										Total:	0.011 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0009%)

Classification of sample: TP KTA014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA014
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6 mg/kg		6 mg/kg	0.0006 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.87	pH		6.87	pH	6.87 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0135 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: TP KTA017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA017
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	1.028 mg/kg	0.000103 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		25 mg/kg	1.462	36.539 mg/kg	0.00365 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		20 mg/kg	2.806	56.111 mg/kg	0.00561 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.5	pH		6.5	pH	6.5 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0153 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP KTA017[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP KTA017[2]
Sample Depth:
2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9 mg/kg	1.142	1.028 mg/kg	0.000103 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	0.33 mg/kg		0.33 mg/kg	0.000033 %	✓	
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		18 mg/kg	2.806	50.5 mg/kg	0.00505 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		1 mg/kg		1 mg/kg	0.0001 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH		PH		7.93	pH		7.93	pH	7.93 pH		
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0153 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: H[redacted]
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.293.4891.9295 (20 Oct 2021)
HazWasteOnline Database: 2021.293.4891.9295 (20 Oct 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

D.8 AB HazWasteOnline™ Report

Waste Classification Report

[redacted]

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 AB - TOPSOIL

Description/Comments

53 topsoil samples taken from around the existing A66 between Appleby and Brough to inform upgrade works

Project

A66 NTP

Site

Appleby to Brough (Warcop)

Classified by

Name:
Jennifer Morley
Date:
19 Oct 2021 14:37 GMT
Telephone:
[redacted]

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	BH AB001	0.3	Non Hazardous		3
2	BH AB008	0.3	Non Hazardous		5
3	BH AB003	0.3	Non Hazardous		7
4	TP AB009	0.15	Non Hazardous		9
5	TP AB017	0.2	Non Hazardous		12
6	TP AB001	0.2	Non Hazardous		14
7	TP AB016	0.2	Non Hazardous		17
8	TP AB005	0.2	Non Hazardous		20
9	TP AB007	0.2	Non Hazardous		23
10	TP AB006	0.2	Non Hazardous		25
11	BH AB018	0.3	Non Hazardous		28
12	TP AB022	0.2	Non Hazardous		31
13	BH AB027	0.2	Non Hazardous		34
14	BH AB028	0.2	Non Hazardous		36
15	BH AB019	0.5	Non Hazardous		39
16	TP AB034	0.3	Non Hazardous		42
17	TP AB015	0.2	Non Hazardous		45
18	BH AB014	0.2	Non Hazardous		48
19	TP AB040	0.2	Non Hazardous		51
20	BH AB045	0.2	Non Hazardous		54
21	TP AB014	0.2	Non Hazardous		57
22	TP AB018	0.2	Non Hazardous		60
23	TP AB042	0.2	Non Hazardous		63
24	BH AB011	0.2	Non Hazardous		66
25	BH AB043	0.1	Non Hazardous		68
26	BH AB040	0.2	Non Hazardous		70
27	BH AB026	0.2	Non Hazardous		73
28	TP AB024	0.2	Non Hazardous		76
29	TP AB026	0.2	Non Hazardous		79
30	BH AB031	0.2	Non Hazardous		82
31	BH AB032	0.2	Non Hazardous		85
32	BH AB021	0.2	Non Hazardous		88
33	BH AB022	0.2	Non Hazardous		90
34	TP AB055	0.2	Non Hazardous		92

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
35	TP AB056	0.2	Non Hazardous		95
36	BH AB019A	0.1	Non Hazardous		98
37	TP AB050	0.2	Non Hazardous		101
38	TP AB045	0.2	Non Hazardous		104
39	TP AB025	0.2	Non Hazardous		107
40	BH AB038	0.2	Non Hazardous		110
41	TP AB053	0.2	Non Hazardous		113
42	TP AB054	0.2	Non Hazardous		116
43	TP AB.borrowpit01	0.2	Non Hazardous		119
44	BH AB046	0.2	Non Hazardous		122
45	BH AB035	0.2	Non Hazardous		125
46	TP AB046	0.5	Non Hazardous		128
47	BH AB037	0.2	Non Hazardous		130
48	TP AB031	0.1	Non Hazardous		133
49	TP AB032	0.5	Non Hazardous		136
50	TP AB002	0.2	Non Hazardous		139
51	TP AB004	0.1	Non Hazardous		142
52	TP AB057	0.2	Non Hazardous		145
53	TP AB006[2]	0.2	Non Hazardous		148

Related documents

#	Name	Description
1	E03. geoenvironmental results (AB)[1].pdf	Document attached to Job: A66 AB - TOPSOIL
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 19 Oct 2021 14:37 GMT

Classification of sample: BH AB001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB001	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.3 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	6 mg/kg		6 mg/kg	0.0006 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		19 mg/kg	1.245	23.65 mg/kg	0.00236 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		6 mg/kg		6 mg/kg	0.0006 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.12	pH		7.12	pH	7.12 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0102 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: BH AB008

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB008	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.3 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	8.769 mg/kg	0.000877 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %	✓	
7	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
8	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2 mg/kg	2.806	5.611 mg/kg	0.000561 %	✓	
9	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
10	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		16 mg/kg		16 mg/kg	0.0016 %	✓	
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
13	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	pH			PH		6.35 pH		6.35 pH	6.35 pH		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
18		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
19		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
20		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
21		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
22		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
23		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
24		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
25		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
26		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
27		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
28		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
29		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
30		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
31		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
32		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
33		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00744 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0016%)

Classification of sample: BH AB003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB003	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.3 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		18 mg/kg	0.0018 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		22 mg/kg		22 mg/kg	0.0022 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.04	pH		7.04	pH	7.04 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00938 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0022%)

Classification of sample: TP AB009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB009	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.15 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		31 mg/kg	1.245	38.586 mg/kg	0.00386 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		43 mg/kg		43 mg/kg	0.0043 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.66	pH		7.66	pH	7.66 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0157 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0043%)

Classification of sample: TP AB017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB017
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	29	mg/kg		29	mg/kg	0.0029 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2	mg/kg	2.806	5.611	mg/kg	0.000561 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13	mg/kg	1.245	16.181	mg/kg	0.00162 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		14	mg/kg		14	mg/kg	0.0014 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.8	pH		5.8	pH	5.8 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00877 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0014%)

Classification of sample: TP AB001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB001
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13	mg/kg	1.245	16.181	mg/kg	0.00162 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		22	mg/kg		22	mg/kg	0.0022 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.31	pH		7.31	pH	7.31 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				0.33	mg/kg		0.33	mg/kg	0.000033 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.27	mg/kg		0.27	mg/kg	0.000027 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.19	mg/kg		0.19	mg/kg	0.000019 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.17	mg/kg		0.17	mg/kg	0.000017 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00932 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0022%)

Classification of sample: TP AB016

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB016	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5 mg/kg		5 mg/kg	0.0005 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		18 mg/kg	0.0018 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		11 mg/kg		11 mg/kg	0.0011 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				5.97	pH		5.97	pH	5.97 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0126 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0011%)

Classification of sample: TP AB005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB005
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8	mg/kg	1.462	11.692	mg/kg	0.00117 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19	mg/kg	1.126	21.392	mg/kg	0.00214 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	24	mg/kg		24	mg/kg	0.0024 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		44	mg/kg	1.245	54.767	mg/kg	0.00548 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		159	mg/kg		159	mg/kg	0.0159 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.43	pH		7.43	pH	7.43 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0304 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0159%)

Classification of sample: TP AB007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB007
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	24 mg/kg		24 mg/kg	0.0024 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		20 mg/kg		20 mg/kg	0.002 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.12	pH		6.12	pH	6.12 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.002%)

Classification of sample: TP AB006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB006	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	18.014 mg/kg	0.0018 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		37 mg/kg	1.245	46.054 mg/kg	0.00461 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		23 mg/kg		23 mg/kg	0.0023 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.93	pH		6.93	pH	6.93 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0156 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0023%)

Classification of sample: BH AB018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB018
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		15 mg/kg		15 mg/kg	0.0015 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	27.77 mg/kg	0.00278 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	34 mg/kg		34 mg/kg	0.0034 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		49 mg/kg	1.245	60.991 mg/kg	0.0061 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		7 mg/kg	0.0007 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				4.72	pH		4.72	pH	4.72 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0212 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP AB022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB022	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		3 mg/kg		3 mg/kg	0.0003 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		12 mg/kg	1.126	13.511 mg/kg	0.00135 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	24 mg/kg		24 mg/kg	0.0024 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		35 mg/kg	1.245	43.565 mg/kg	0.00436 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		19 mg/kg		19 mg/kg	0.0019 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.95	pH		6.95	pH	6.95 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0159 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0019%)

Classification of sample: BH AB027

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB027
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		16	mg/kg		16	mg/kg	0.0016 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.9	mg/kg	1.142	1.028	mg/kg	0.000103 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23	mg/kg	1.462	33.616	mg/kg	0.00336 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		64	mg/kg	1.126	72.057	mg/kg	0.00721 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	132	mg/kg		132	mg/kg	0.0132 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	1.48	mg/kg		1.48	mg/kg	0.000148 %	✓	
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		31	mg/kg	2.806	86.972	mg/kg	0.0087 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		133	mg/kg	1.245	165.547	mg/kg	0.0166 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		16	mg/kg		16	mg/kg	0.0016 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.03	pH		6.03	pH	6.03 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0533 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0016%)

Classification of sample: BH AB028

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB028
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10	mg/kg		10	mg/kg	0.001 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20	mg/kg	1.245	24.894	mg/kg	0.00249 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		15	mg/kg		15	mg/kg	0.0015 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.18	pH		6.18	pH	6.18 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
35		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3									
36		tetrachloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-028-00-4	204-825-9	127-18-4									
37		carbon tetrachloride; tetrachloromethane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
38		trichloroethylene; trichloroethene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-027-00-9	201-167-4	79-01-6									
39		vinyl chloride; chloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-023-00-7	200-831-0	75-01-4									
40		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		602-065-00-6	204-273-9	118-74-1									
41		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0105 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0015%)

Classification of sample: BH AB019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB019	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		23 mg/kg		23 mg/kg	0.0023 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.8 mg/kg	1.142	0.914 mg/kg	0.0000914 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		30 mg/kg	1.462	43.847 mg/kg	0.00438 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	25 mg/kg		25 mg/kg	0.0025 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		16 mg/kg	2.806	44.889 mg/kg	0.00449 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		2 mg/kg	2.351	4.702 mg/kg	0.00047 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		47 mg/kg	1.245	58.502 mg/kg	0.00585 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		7 mg/kg		7 mg/kg	0.0007 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.24	pH		6.24	pH	6.24 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0235 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP AB034

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB034
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	8.769 mg/kg	0.000877 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22 mg/kg	1.245	27.384 mg/kg	0.00274 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		33 mg/kg		33 mg/kg	0.0033 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.05	pH		7.05	pH	7.05 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				0.36	mg/kg		0.36	mg/kg	0.000036 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.31	mg/kg		0.31	mg/kg	0.000031 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.22	mg/kg		0.22	mg/kg	0.000022 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.27	mg/kg		0.27	mg/kg	0.000027 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.22	mg/kg		0.22	mg/kg	0.000022 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0129 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0033%)

Classification of sample: TP AB015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB015
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17 mg/kg		17 mg/kg	0.0017 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		15 mg/kg		15 mg/kg	0.0015 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.64	pH		5.64	pH	5.64 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0102 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0015%)

Classification of sample: BH AB014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB014
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19	mg/kg		19	mg/kg	0.0019 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27	mg/kg	1.245	33.607	mg/kg	0.00336 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		7	mg/kg		7	mg/kg	0.0007 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.41	pH		6.41	pH	6.41 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0129 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP AB040

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB040
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5	mg/kg		5	mg/kg	0.0005 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		1	mg/kg	3.22	3.22	mg/kg	0.000322 %	✓	
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14	mg/kg		14	mg/kg	0.0014 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<**LOD**
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16	mg/kg	1.245	19.915	mg/kg	0.00199 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		21	mg/kg		21	mg/kg	0.0021 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.77	pH		6.77	pH	6.77 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0107 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0021%)

Classification of sample: BH AB045

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB045
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13 mg/kg	1.126	14.637 mg/kg	0.00146 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	28 mg/kg		28 mg/kg	0.0028 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		37 mg/kg	1.245	46.054 mg/kg	0.00461 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		28 mg/kg		28 mg/kg	0.0028 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.56	pH		6.56	pH	6.56 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0177 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0028%)

Classification of sample: TP AB014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB014
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	7.308 mg/kg	0.000731 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10 mg/kg	1.245	12.447 mg/kg	0.00124 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.7	pH		6.7	pH	6.7 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00645 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP AB018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB018
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20	mg/kg		20	mg/kg	0.002 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22	mg/kg	1.245	27.384	mg/kg	0.00274 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		35	mg/kg		35	mg/kg	0.0035 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.39	pH		6.39	pH	6.39 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				0.01	mg/kg		0.01	mg/kg	0.000001 %	✓	
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			201-581-5	85-01-8									
24		anthracene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			204-371-1	120-12-7									
25		fluoranthene				0.5	mg/kg		0.5	mg/kg	0.00005 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.4	mg/kg		0.4	mg/kg	0.00004 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.23	mg/kg		0.23	mg/kg	0.000023 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.28	mg/kg		0.28	mg/kg	0.000028 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.33	mg/kg		0.33	mg/kg	0.000033 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.27	mg/kg		0.27	mg/kg	0.000027 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.17	mg/kg		0.17	mg/kg	0.000017 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.013 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0035%)

Classification of sample: TP AB042

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB042	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		6 mg/kg	1.462	8.769 mg/kg	0.000877 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	13 mg/kg		13 mg/kg	0.0013 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		9 mg/kg		9 mg/kg	0.0009 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.14	pH		6.14	pH	6.14 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				0.14	mg/kg		0.14	mg/kg	0.000014 %	✓	
			205-912-4	206-44-0									
26	●	pyrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0085 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0009%)

Classification of sample: BH AB011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB011
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4	mg/kg	1.462	5.846	mg/kg	0.000585 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7	mg/kg		7	mg/kg	0.0007 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		<1	mg/kg	2.806	<2.806	mg/kg	<0.000281 %		<LOD
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14	mg/kg	1.245	17.426	mg/kg	0.00174 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		7	mg/kg		7	mg/kg	0.0007 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.13	pH		6.13	pH	6.13 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00523 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: BH AB043

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB043
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6	mg/kg	1.142	0.685	mg/kg	0.0000685 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19	mg/kg	1.462	27.77	mg/kg	0.00278 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	10.133	mg/kg	0.00101 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	23	mg/kg		23	mg/kg	0.0023 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12	mg/kg	2.806	33.667	mg/kg	0.00337 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		35	mg/kg	1.245	43.565	mg/kg	0.00436 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		16	mg/kg		16	mg/kg	0.0016 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.93	pH		6.93	pH	6.93 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0165 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0016%)

Classification of sample: BH AB040

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB040
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8	mg/kg	1.462	11.692	mg/kg	0.00117 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		8	mg/kg		8	mg/kg	0.0008 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				7.3	pH		7.3	pH	7.3 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3									
38		tetrachloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-028-00-4	204-825-9	127-18-4									
39		carbon tetrachloride; tetrachloromethane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
40		trichloroethylene; trichloroethene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-027-00-9	201-167-4	79-01-6									
41		vinyl chloride; chloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-023-00-7	200-831-0	75-01-4									
42		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		602-065-00-6	204-273-9	118-74-1									
43		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00789 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0008%)

Classification of sample: BH AB026

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB026	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		11 mg/kg		11 mg/kg	0.0011 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.1 mg/kg	1.142	1.257 mg/kg	0.000126 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		28 mg/kg	1.462	40.924 mg/kg	0.00409 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.881 mg/kg	0.000788 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	15 mg/kg		15 mg/kg	0.0015 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		17 mg/kg	2.806	47.695 mg/kg	0.00477 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		1 mg/kg		1 mg/kg	0.0001 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		6.34	pH		6.34	pH	6.34 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.0183 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: TP AB024

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB024
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5	mg/kg		5	mg/kg	0.0005 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8	mg/kg	1.462	11.692	mg/kg	0.00117 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21	mg/kg		21	mg/kg	0.0021 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30	mg/kg	1.245	37.341	mg/kg	0.00373 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		34	mg/kg		34	mg/kg	0.0034 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.03	pH		6.03	pH	6.03 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0148 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0034%)

Classification of sample: TP AB026

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB026	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	23 mg/kg		23 mg/kg	0.0023 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		35 mg/kg	1.245	43.565 mg/kg	0.00436 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		24 mg/kg		24 mg/kg	0.0024 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.23	pH		6.23	pH	6.23 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				0.34	mg/kg		0.34	mg/kg	0.000034 %	✓	
			205-912-4	206-44-0									
26	●	pyrene				0.28	mg/kg		0.28	mg/kg	0.000028 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.21	mg/kg		0.21	mg/kg	0.000021 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.23	mg/kg		0.23	mg/kg	0.000023 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.21	mg/kg		0.21	mg/kg	0.000021 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0145 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0024%)

Classification of sample: BH AB031

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB031
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10	mg/kg		10	mg/kg	0.001 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16	mg/kg	1.245	19.915	mg/kg	0.00199 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		3	mg/kg		3	mg/kg	0.0003 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.11	pH		6.11	pH	6.11 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00767 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: BH AB032

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB032	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	30 mg/kg		30 mg/kg	0.003 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		36 mg/kg	1.245	44.81 mg/kg	0.00448 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		15 mg/kg		15 mg/kg	0.0015 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				5.67	pH		5.67	pH	5.67 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				0.28	mg/kg		0.28	mg/kg	0.000028 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.22	mg/kg		0.22	mg/kg	0.000022 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.19	mg/kg		0.19	mg/kg	0.000019 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0149 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0015%)

Classification of sample: BH AB021

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB021
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15	mg/kg	1.245	18.671	mg/kg	0.00187 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.02	pH		6.02	pH	6.02 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00866 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB022
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6 mg/kg		6 mg/kg	0.0006 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.66	pH		5.66	pH	5.66 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00994 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB055

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB055
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		7	mg/kg		7	mg/kg	0.0007 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8	mg/kg	1.126	9.007	mg/kg	0.000901 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	27	mg/kg		27	mg/kg	0.0027 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		84	mg/kg	1.245	104.556	mg/kg	0.0105 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		27	mg/kg		27	mg/kg	0.0027 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				7.08	pH		7.08	pH	7.08 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.35	mg/kg		0.35	mg/kg	0.000035 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.3	mg/kg		0.3	mg/kg	0.00003 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.14	mg/kg		0.14	mg/kg	0.000014 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.23	mg/kg		0.23	mg/kg	0.000023 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.21	mg/kg		0.21	mg/kg	0.000021 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.14	mg/kg		0.14	mg/kg	0.000014 %	✓	
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0231 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0027%)

Classification of sample: TP AB056

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB056	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		1.1 mg/kg	3.22	3.542 mg/kg	0.000354 %	✓	
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	32 mg/kg		32 mg/kg	0.0032 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		32 mg/kg	1.245	39.831 mg/kg	0.00398 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		16 mg/kg		16 mg/kg	0.0016 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				7.09	pH		7.09	pH	7.09 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0155 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0016%)

Classification of sample: BH AB019A

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB019A
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		32	mg/kg		32	mg/kg	0.0032 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7	mg/kg	1.142	0.8	mg/kg	0.00008 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		32	mg/kg	1.462	46.77	mg/kg	0.00468 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	10.133	mg/kg	0.00101 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	32	mg/kg		32	mg/kg	0.0032 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		18	mg/kg	2.806	50.5	mg/kg	0.00505 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1	mg/kg	2.351	2.351	mg/kg	0.000235 %	✓	
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		58	mg/kg	1.245	72.193	mg/kg	0.00722 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		12	mg/kg		12	mg/kg	0.0012 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.91	pH		5.91	pH	5.91 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0275 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0012%)

Classification of sample: TP AB050

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB050	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		3 mg/kg		3 mg/kg	0.0003 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		5 mg/kg	1.462	7.308 mg/kg	0.000731 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	14 mg/kg		14 mg/kg	0.0014 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		2 mg/kg	2.806	5.611 mg/kg	0.000561 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		7 mg/kg		7 mg/kg	0.0007 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				5.52	pH		5.52	pH	5.52 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.14	mg/kg		0.14	mg/kg	0.000014 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00793 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP AB045

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB045
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	12	mg/kg		12	mg/kg	0.0012 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17	mg/kg	1.245	21.16	mg/kg	0.00212 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		21	mg/kg		21	mg/kg	0.0021 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.7	pH		5.7	pH	5.7 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00966 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0021%)

Classification of sample: TP AB025

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB025
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	18.014 mg/kg	0.0018 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	28 mg/kg		28 mg/kg	0.0028 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		39 mg/kg	1.245	48.544 mg/kg	0.00485 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		10 mg/kg		10 mg/kg	0.001 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		7.56	pH		7.56	pH	7.56 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.017 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: BH AB038

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB038
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8	mg/kg		8	mg/kg	0.0008 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15	mg/kg	1.245	18.671	mg/kg	0.00187 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		5	mg/kg		5	mg/kg	0.0005 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.74	pH		6.74	pH	6.74 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00834 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP AB053

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB053	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	29 mg/kg		29 mg/kg	0.0029 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9 mg/kg	2.806	25.25 mg/kg	0.00253 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34 mg/kg	1.245	42.32 mg/kg	0.00423 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		20 mg/kg		20 mg/kg	0.002 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		6.45	pH		6.45	pH	6.45 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
25		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
27		pyrene	204-927-3	129-00-0		0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
33		indeno[123-cd]pyrene	205-893-2	193-39-5		0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		0.3	mg/kg		0.3	mg/kg	0.00003 %	✓	
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.0168 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.002%)

Classification of sample: TP AB054

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB054
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20	mg/kg		20	mg/kg	0.002 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8	mg/kg	2.806	22.445	mg/kg	0.00224 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		54	mg/kg	1.245	67.215	mg/kg	0.00672 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		33	mg/kg		33	mg/kg	0.0033 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.16	pH		6.16	pH	6.16 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				0.4	mg/kg		0.4	mg/kg	0.00004 %	✓	
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0193 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0033%)

Classification of sample: TP AB.borrowpit01

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB.borrowpit01
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH 		PH		6.01	pH		6.01	pH	6.01 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene 	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene 	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene 	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene 	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene 	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene 	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene 	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.01 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: BH AB046

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB046
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		1.4	mg/kg	3.22	4.508	mg/kg	0.000451 %	✓	
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16	mg/kg	1.462	23.385	mg/kg	0.00234 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	13.511	mg/kg	0.00135 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	29	mg/kg		29	mg/kg	0.0029 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9	mg/kg	2.806	25.25	mg/kg	0.00253 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		39	mg/kg	1.245	48.544	mg/kg	0.00485 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		13	mg/kg		13	mg/kg	0.0013 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.74	pH		6.74	pH	6.74 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.17	mg/kg		0.17	mg/kg	0.000017 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0176 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0013%)

Classification of sample: BH AB035

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB035
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number / EC Number / CAS Number							
1	arsenic { arsenic }		3 mg/kg		3 mg/kg	0.0003 %	✓	
	033-001-00-X / 231-148-6 / 7440-38-2							
2	boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
	005-008-00-8 / 215-125-8 / 1303-86-2							
3	cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
	048-002-00-0 / 215-146-2 / 1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
	/ 215-160-9 / 1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
	024-001-00-0 / 215-607-8 / 1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
	029-002-00-X / 215-270-7 / 1317-39-1							
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	16 mg/kg		16 mg/kg	0.0016 %	✓	
	082-001-00-6 / /							
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
	080-002-00-6 / /							
9	nickel { dinickel hexacyanoferrate }		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
	028-037-00-8 / 238-946-3 / 14874-78-3							
10	selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
	028-048-00-8 / 233-263-7 / 10101-96-9							
11	zinc { zinc oxide }		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
	030-013-00-7 / 215-222-5 / 1314-13-2							
12	TPH (C6 to C40) petroleum group		32 mg/kg		32 mg/kg	0.0032 %	✓	
	/ / TPH							
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	603-181-00-X / 216-653-1 / 1634-04-4							
14	benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-020-00-8 / 200-753-7 / 71-43-2							
15	toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-021-00-3 / 203-625-9 / 108-88-3							
16	ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-023-00-4 / 202-849-4 / 100-41-4							
17	xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		6.48	pH		6.48	pH	6.48 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
25		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
27		pyrene	204-927-3	129-00-0		0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
29		chrysene 601-048-00-0	205-923-4	218-01-9		0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
33		indeno[123-cd]pyrene	205-893-2	193-39-5		0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.0132 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0032%)

Classification of sample: TP AB046

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB046
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7	mg/kg	1.126	7.881	mg/kg	0.000788 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8	mg/kg		8	mg/kg	0.0008 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11	mg/kg	2.806	30.861	mg/kg	0.00309 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17	mg/kg	1.245	21.16	mg/kg	0.00212 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.64	pH		7.64	pH	7.64 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0101 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB037

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB037
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17	mg/kg		17	mg/kg	0.0017 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18	mg/kg	1.245	22.405	mg/kg	0.00224 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		39	mg/kg		39	mg/kg	0.0039 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				5.91	pH		5.91	pH	5.91 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0126 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0039%)

Classification of sample: TP AB031

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB031
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	7.308 mg/kg	0.000731 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2 mg/kg	2.806	5.611 mg/kg	0.000561 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.48	pH		6.48	pH	6.48 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00694 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP AB032

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB032
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		12	mg/kg	1.245	14.937	mg/kg	0.00149 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		1	mg/kg		1	mg/kg	0.0001 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.9	pH		6.9	pH	6.9 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00585 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: TP AB002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB002	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17	mg/kg		17	mg/kg	0.0017 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<**LOD**
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14	mg/kg	1.245	17.426	mg/kg	0.00174 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		19	mg/kg		19	mg/kg	0.0019 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		5.41	pH		5.41	pH	5.41 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
25		anthracene	204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
27		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.0103 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0019%)

Classification of sample: TP AB004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB004
Sample Depth:
0.1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		14	mg/kg		14	mg/kg	0.0014 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8	mg/kg	1.126	9.007	mg/kg	0.000901 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14	mg/kg		14	mg/kg	0.0014 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8	mg/kg	2.806	22.445	mg/kg	0.00224 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27	mg/kg	1.245	33.607	mg/kg	0.00336 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		38	mg/kg		38	mg/kg	0.0038 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.63	pH		6.63	pH	6.63 pH		
				PH									
20		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.017 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0038%)

Classification of sample: TP AB057

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB057
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	18.014 mg/kg	0.0018 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	41 mg/kg		41 mg/kg	0.0041 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9 mg/kg	2.806	25.25 mg/kg	0.00253 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		58 mg/kg	1.245	72.193 mg/kg	0.00722 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		24 mg/kg		24 mg/kg	0.0024 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		7.05	pH		7.05	pH	7.05 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
25		anthracene	204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
27		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.0231 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0024%)

Classification of sample: TP AB006[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB006[2]
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		16 mg/kg	1.126	18.014 mg/kg	0.0018 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20 mg/kg		20 mg/kg	0.002 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		37 mg/kg	1.245	46.054 mg/kg	0.00461 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		23 mg/kg		23 mg/kg	0.0023 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.93	pH		6.93	pH	6.93 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0156 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0023%)

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: [redacted]
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **1,1-dichloroethane and 1,2-dichloroethane (combined)** (EC Number: 203-458-1, 200-863-5, CAS Number: 107-06-2, 75-34-3)

Description/Comments: Combines the hazard statements and risk phrases for 1,1-dichloroethane and 1,2-dichloroethane
Data source: N/a
Data source date: 14 Oct 2016
Hazard Statements: Flam. Liq. 2 H225 , Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 1B H350 , Aquatic Chronic 3 H412

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.246.4869.9247 (05 Sep 2021)
HazWasteOnline Database: 2021.246.4869.9247 (05 Sep 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report

[redacted]

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 AB - MADE GROUND

Description/Comments

17 Made Ground samples taken from around the existing A66 to inform upgrade design

Project

A66 NTP

Site

Appleby to Brough (Warcop)

Classified by

Name:
Jennifer Morley
Date:
19 Oct 2021 14:29 GMT
Telephone:
[redacted]

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP AB010	0.6	Non Hazardous		2
2	TP AB003	0.6	Non Hazardous		4
3	TP AB003[2]	2.4	Non Hazardous		7
4	TP AB001	0.7	Non Hazardous		9
5	TP AB016	0.2	Non Hazardous		11
6	TP AB016[2]	0.5	Non Hazardous		14
7	TP AB011	0.6	Non Hazardous		17
8	TP AB012	0.15	Non Hazardous		20
9	TP AB038	0.2	Non Hazardous		23
10	TP AB028	0.5	Non Hazardous		25
11	TP AB028[2]	0.8	Non Hazardous		28
12	TP AB030	0.2	Non Hazardous		31
13	TP AB052	0.5	Non Hazardous		34
14	TP AB052[2]	1.2	Non Hazardous		37
15	TP AB036	0.2	Non Hazardous		40
16	BH AB030	0.3	Non Hazardous		43
17	TP AB029	0.2	Non Hazardous		46

Related documents

#	Name	Description
1	E03. geoenvironmental results (AB).pdf	Document attached to Job: A66 AB - MADE GROUND
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 19 Oct 2021 14:29 GMT

Classification of sample: TP AB010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB010
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8	mg/kg	2.806	22.445	mg/kg	0.00224 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		7	mg/kg		7	mg/kg	0.0007 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.52	pH		7.52	pH	7.52 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00777 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP AB003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB003
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4	mg/kg		4	mg/kg	0.0004 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5	mg/kg	1.142	0.571	mg/kg	0.0000571 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13	mg/kg	1.462	19	mg/kg	0.0019 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13	mg/kg		13	mg/kg	0.0013 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		26	mg/kg	1.245	32.363	mg/kg	0.00324 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		2	mg/kg		2	mg/kg	0.0002 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.47	pH		6.47	pH	6.47 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0115 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: TP AB003[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB003[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
2.4 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1 mg/kg	1.142	1.142 mg/kg	0.000114 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27 mg/kg	1.245	33.607 mg/kg	0.00336 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.56	pH		6.56	pH	6.56 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.011 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB001	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.7 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		4 mg/kg		4 mg/kg	0.0004 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	23 mg/kg		23 mg/kg	0.0023 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		30 mg/kg	1.245	37.341 mg/kg	0.00373 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.32	pH		7.32	pH	7.32 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0123 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB016

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB016	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		5 mg/kg		5 mg/kg	0.0005 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	18 mg/kg		18 mg/kg	0.0018 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		11 mg/kg		11 mg/kg	0.0011 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				5.97	pH		5.97	pH	5.97 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0126 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0011%)

Classification of sample: TP AB016[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB016[2]
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13	mg/kg		13	mg/kg	0.0013 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17	mg/kg	1.245	21.16	mg/kg	0.00212 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		7	mg/kg		7	mg/kg	0.0007 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.04	pH		6.04	pH	6.04 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0101 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP AB011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB011	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.6 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6 mg/kg		6 mg/kg	0.0006 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		9 mg/kg	1.245	11.202 mg/kg	0.00112 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		3 mg/kg		3 mg/kg	0.0003 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.39	pH		7.39	pH	7.39 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00683 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: TP AB012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB012
Sample Depth:
0.15 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	15	mg/kg		15	mg/kg	0.0015 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2	mg/kg	2.806	5.611	mg/kg	0.000561 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21	mg/kg	1.245	26.139	mg/kg	0.00261 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		25	mg/kg		25	mg/kg	0.0025 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.65	pH		6.65	pH	6.65 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				0.27	mg/kg		0.27	mg/kg	0.000027 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.22	mg/kg		0.22	mg/kg	0.000022 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.25	mg/kg		0.25	mg/kg	0.000025 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.19	mg/kg		0.19	mg/kg	0.000019 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.14	mg/kg		0.14	mg/kg	0.000014 %	✓	
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0111 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0025%)

Classification of sample: TP AB038

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB038
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14 mg/kg	1.126	15.762 mg/kg	0.00158 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	23 mg/kg		23 mg/kg	0.0023 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		42 mg/kg	1.245	52.278 mg/kg	0.00523 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.17	pH		7.17	pH	7.17 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.014 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB028

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB028

Sample Depth:
0.5 m

LoW Code:

Chapter:
17: Construction and Demolition Wastes (including excavated soil from contaminated sites)

Entry:
17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		9 mg/kg		9 mg/kg	0.0009 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	12 mg/kg		12 mg/kg	0.0012 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		23 mg/kg	1.245	28.628 mg/kg	0.00286 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		5 mg/kg		5 mg/kg	0.0005 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.49	pH		6.49	pH	6.49 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
36		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3									
37		tetrachloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-028-00-4	204-825-9	127-18-4									
38		carbon tetrachloride; tetrachloromethane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
39		trichloroethylene; trichloroethene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-027-00-9	201-167-4	79-01-6									
40		vinyl chloride; chloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-023-00-7	200-831-0	75-01-4									
41		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		602-065-00-6	204-273-9	118-74-1									
42		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0131 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP AB028[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB028[2]
Sample Depth:
0.8 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		12 mg/kg		12 mg/kg	0.0012 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.39	pH		6.39	pH	6.39 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
35		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3									
36		tetrachloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-028-00-4	204-825-9	127-18-4									
37		carbon tetrachloride; tetrachloromethane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
38		trichloroethylene; trichloroethene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-027-00-9	201-167-4	79-01-6									
39		vinyl chloride; chloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-023-00-7	200-831-0	75-01-4									
40		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		602-065-00-6	204-273-9	118-74-1									
41		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0127 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0012%)

Classification of sample: TP AB030

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB030
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		7 mg/kg		7 mg/kg	0.0007 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	27 mg/kg		27 mg/kg	0.0027 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		31 mg/kg	1.245	38.586 mg/kg	0.00386 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		30 mg/kg		30 mg/kg	0.003 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.12	pH		7.12	pH	7.12 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			201-581-5	85-01-8									
24		anthracene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			204-371-1	120-12-7									
25		fluoranthene				0.54	mg/kg		0.54	mg/kg	0.000054 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.45	mg/kg		0.45	mg/kg	0.000045 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.24	mg/kg		0.24	mg/kg	0.000024 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.35	mg/kg		0.35	mg/kg	0.000035 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.31	mg/kg		0.31	mg/kg	0.000031 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.29	mg/kg		0.29	mg/kg	0.000029 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
36		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3									
37		tetrachloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-028-00-4	204-825-9	127-18-4									
38		carbon tetrachloride; tetrachloromethane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
39		trichloroethylene; trichloroethene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-027-00-9	201-167-4	79-01-6									
40		vinyl chloride; chloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<**LOD**
		602-023-00-7	200-831-0	75-01-4									
41		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		602-065-00-6	204-273-9	118-74-1									
42		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.018 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.003%)

Classification of sample: TP AB052

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB052
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1 mg/kg	1.142	1.142 mg/kg	0.000114 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		30 mg/kg	1.462	43.847 mg/kg	0.00438 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	9.007 mg/kg	0.000901 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		16 mg/kg	2.806	44.889 mg/kg	0.00449 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		39 mg/kg	1.245	48.544 mg/kg	0.00485 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		8 mg/kg		8 mg/kg	0.0008 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.49	pH		6.49	pH	6.49 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				2.6	mg/kg		2.6	mg/kg	0.00026 %	✓	
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0188 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0008%)

Classification of sample: TP AB052[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB052[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6	mg/kg		6	mg/kg	0.0006 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13	mg/kg	1.462	19	mg/kg	0.0019 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	0.23	mg/kg		0.23	mg/kg	0.000023 %	✓	
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12	mg/kg	2.806	33.667	mg/kg	0.00337 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15	mg/kg	1.245	18.671	mg/kg	0.00187 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		10	mg/kg		10	mg/kg	0.001 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.06	pH		7.06	pH	7.06 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				1.5	mg/kg		1.5	mg/kg	0.00015 %	✓	
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0119 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Classification of sample: TP AB036

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB036
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		3	mg/kg	1.462	4.385	mg/kg	0.000438 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3	mg/kg		3	mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	2.72	mg/kg		2.72	mg/kg	0.000272 %	✓	
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		1	mg/kg	2.351	2.351	mg/kg	0.000235 %	✓	
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		<5	mg/kg	1.245	<6.224	mg/kg	<0.000622 %		<LOD
12		TPH (C6 to C40) petroleum group			TPH		5	mg/kg		5	mg/kg	0.0005 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.64	pH		8.64	pH	8.64 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00562 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: BH AB030

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB030

Sample Depth:
0.3 m

LoW Code:

Chapter:
17: Construction and Demolition Wastes (including excavated soil from contaminated sites)

Entry:
17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<**LOD**
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		8	mg/kg	1.245	9.958	mg/kg	0.000996 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		17	mg/kg		17	mg/kg	0.0017 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH		PH		7.51	pH		7.51	pH	7.51 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
21		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
24		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
25		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
26		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
27		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
33		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
35		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
36		phenol 604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
37		asbestos 650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
										Total:	0.00776 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0017%)

Classification of sample: TP AB029

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB029
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17	mg/kg		17	mg/kg	0.0017 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18	mg/kg	1.245	22.405	mg/kg	0.00224 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		10	mg/kg		10	mg/kg	0.001 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.33	pH		6.33	pH	6.33 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.17	mg/kg		0.17	mg/kg	0.000017 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.14	mg/kg		0.14	mg/kg	0.000014 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00985 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.001%)

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: [redacted]
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

1,1-dichloroethane and 1,2-dichloroethane (combined) (EC Number: 203-458-1, 200-863-5, CAS Number: 107-06-2, 75-34-3)

Description/Comments: Combines the hazard statements and risk phrases for 1,1-dichloroethane and 1,2-dichloroethane
Data source: N/a
Data source date: 14 Oct 2016
Hazard Statements: Flam. Liq. 2 H225 , Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 1B H350 , Aquatic Chronic 3 H412

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

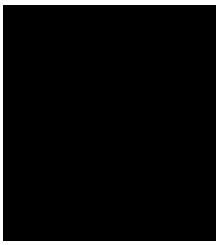
Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.246.4869.9247 (05 Sep 2021)
HazWasteOnline Database: 2021.246.4869.9247 (05 Sep 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Waste Classification Report



HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

A66 AB - SUPERFICIALS

Description/Comments

119 soil samples (consisting of 24 cohesive and 95 granular samples) were taken from around the existing A66 to inform upgrade design works

Project

A66 NTP

Site

Appleby to Brough (Warcop)

Classified by

Name:
Jennifer Morley
Date:
22 Oct 2021 13:48 GMT
Telephone:
[redacted]

Company:
Amey
Precision House, Off McNeil Drive,
Eurocentral
Motherwell
ML1 4UR

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
35	TP AB035	0.6	Non Hazardous		74
36	TP AB035[2]	1.4	Non Hazardous		76
37	TP AB015	0.5	Non Hazardous		78
38	WS AB007	1	Non Hazardous		80
39	BH AB042	0.5	Non Hazardous		82
40	TP AB041	0.6	Non Hazardous		84
41	TP AB041[2]	1.5	Non Hazardous		86
42	BH AB044	0.2	Non Hazardous		88
43	BH AB044[2]	0.5	Non Hazardous		91
44	BH AB014	0.5	Non Hazardous		93
45	TP AB039	0.5	Non Hazardous		95
46	TP AB039[2]	1.2	Non Hazardous		97
47	TP AB040	1	Non Hazardous		99
48	BH AB045	0.5	Non Hazardous		101
49	TP AB052	1.9	Non Hazardous		103
50	TP AB014	0.6	Non Hazardous		105
51	TP AB018	1.5	Non Hazardous		107
52	TP AB042	0.7	Non Hazardous		109
53	BH AB011	0.5	Non Hazardous		111
54	BH AB043	1.2	Non Hazardous		113
55	TP AB036	0.7	Non Hazardous		115
56	TP AB037	0.2	Non Hazardous		117
57	TP AB037[2]	1.5	Non Hazardous		120
58	BH AB040	0.5	Non Hazardous		122
59	BH AB026	0.5	Non Hazardous		125
60	BH AB026[2]	1.2	Non Hazardous		127
61	BH AB015	0.5	Non Hazardous		129
62	BH AB039	1.2	Non Hazardous		131
63	TP AB024	0.6	Non Hazardous		133
64	TP AB026	0.6	Non Hazardous		135
65	BH AB024	0.5	Non Hazardous		138
66	BH AB031	0.5	Non Hazardous		140
67	BH AB032	0.5	Non Hazardous		142
68	BH AB012A	1.2	Non Hazardous		144
69	BH AB021	1.2	Non Hazardous		146
70	BH AB022	0.5	Non Hazardous		148
71	TP AB055	0.8	Non Hazardous		150
72	TP AB056	0.5	Non Hazardous		152
73	BH AB019A	0.5	Non Hazardous		154
74	BH AB023	0.5	Non Hazardous		156
75	BH AB030	0.5	Non Hazardous		158
76	BH AB029	0.5	Non Hazardous		160
77	BH AB012	0.5	Non Hazardous		162
78	TP AB047	0.6	Non Hazardous		164
79	TP AB047[2]	1.5	Non Hazardous		166
80	TP AB050	0.6	Non Hazardous		168
81	TP AB044	0.7	Non Hazardous		170
82	TP AB044[2]	1.6	Non Hazardous		172
83	TP AB045	1	Non Hazardous		174
84	TP AB025	0.6	Non Hazardous		176
85	TP AB023	0.6	Non Hazardous		178
86	TP AB023[2]	1.5	Non Hazardous		180
87	BH AB033	0.5	Non Hazardous		182
88	BH AB033[2]	1.2	Non Hazardous		184
89	BH AB038	0.5	Non Hazardous		186
90	BH AB034	0.5	Non Hazardous		188
91	TP AB051	0.6	Non Hazardous		190
92	TP AB051[2]	1.3	Non Hazardous		192
93	TP AB053	1.5	Non Hazardous		194
94	TP AB054	0.6	Non Hazardous		196
95	TP AB.borrowpit02	0.5	Non Hazardous		198
96	TP AB.borrowpit03	0.75	Non Hazardous		200
97	BH AB046	1	Non Hazardous		202
98	BH AB047	0.5	Non Hazardous		204
99	BH AB047[2]	1	Non Hazardous		206
100	BH AB035	0.5	Non Hazardous		208
101	TP AB046	3	Non Hazardous		210
102	TP AB048	0.5	Non Hazardous		212
103	TP AB048[2]	1.0	Non Hazardous		214
104	TP AB049	0.2	Non Hazardous		216

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
105	TP AB049[2]	1	Non Hazardous		219
106	BH AB036	0.5	Non Hazardous		221
107	BH AB037	0.2	Non Hazardous		223
108	BH AB037[2]	0.5	Non Hazardous		226
109	TP AB029	0.5	Non Hazardous		228
110	TP AB031	1.2	Non Hazardous		230
111	TP AB032	2.4	Non Hazardous		232
112	BH AB025	0.2	Non Hazardous		234
113	BH AB048	0.5	Non Hazardous		237
114	TP AB.borrowpit04	0.5	Non Hazardous		239
115	TP AB002	0.5	Non Hazardous		241
116	TP AB004	1	Non Hazardous		243
117	TP AB057	1.5	Non Hazardous		245
118	TP AB059	0.5	Non Hazardous		247
119	TP AB059[2]	1.5	Non Hazardous		249

Related documents

#	Name	Description
1	E03. geoenvironmental results (AB).pdf	Document attached to Job: A66 AB - SUPERFICIALS
2	A66 NTP Template	waste stream template used to create this Job

Report

Created by: Jennifer Morley

Created date: 22 Oct 2021 13:48 GMT

Classification of sample: BH AB001

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB001
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4	mg/kg		4	mg/kg	0.0004 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19	mg/kg		19	mg/kg	0.0019 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22	mg/kg	1.245	27.384	mg/kg	0.00274 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.73	pH		6.73	pH	6.73 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00935 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB002
Sample Depth:
0.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6	mg/kg	2.806	16.833	mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		12	mg/kg	1.245	14.937	mg/kg	0.00149 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		3	mg/kg		3	mg/kg	0.0003 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.14	pH		7.14	pH	7.14 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00692 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: BH AB002[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB002[2]
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	4 mg/kg		4 mg/kg	0.0004 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		9 mg/kg	1.245	11.202 mg/kg	0.00112 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		2 mg/kg		2 mg/kg	0.0002 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.05	pH		7.05	pH	7.05 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00518 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH AB005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB005
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		12	mg/kg	1.245	14.937	mg/kg	0.00149 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		12	mg/kg		12	mg/kg	0.0012 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.29	pH		7.29	pH	7.29 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00743 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0012%)

Classification of sample: BH AB005[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB005[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		3 mg/kg		3 mg/kg	0.0003 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	5 mg/kg		5 mg/kg	0.0005 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		7 mg/kg		7 mg/kg	0.0007 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.7	pH		7.7	pH	7.7 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00736 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: BH AB008

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB008
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
7	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
8	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
9	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
10	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		9 mg/kg	1.245	11.202 mg/kg	0.00112 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
13	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	pH			PH		6.55 pH		6.55 pH	6.55 pH		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
18		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
19		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
20		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
21		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
22		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
23		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
24		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
25		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
26		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
27		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
28		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
29		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
30		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
31		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
32		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
33		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00648 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB006
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		4 mg/kg		4 mg/kg	0.0004 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	9 mg/kg		9 mg/kg	0.0009 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		45 mg/kg	1.245	56.012 mg/kg	0.0056 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.86	pH		8.86	pH	8.86 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0159 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB003

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB003
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6	mg/kg	2.806	16.833	mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.06	pH		7.06	pH	7.06 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00616 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB010
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4	mg/kg	1.462	5.846	mg/kg	0.000585 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3	mg/kg		3	mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		8	mg/kg	1.245	9.958	mg/kg	0.000996 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.25	pH		6.25	pH	6.25 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00504 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB009
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6	mg/kg		6	mg/kg	0.0006 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7	mg/kg	1.142	0.8	mg/kg	0.00008 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3	mg/kg		3	mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		7	mg/kg	1.245	8.713	mg/kg	0.000871 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.53	pH		7.53	pH	7.53 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00486 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB010

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB010
Sample Depth:
1.4 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8	mg/kg	2.806	22.445	mg/kg	0.00224 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13	mg/kg	1.245	16.181	mg/kg	0.00162 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		24	mg/kg		24	mg/kg	0.0024 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.12	pH		8.12	pH	8.12 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00981 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0024%)

Classification of sample: TP AB017

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB017
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1	mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3	mg/kg		3	mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		6	mg/kg	1.245	7.468	mg/kg	0.000747 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.32	pH		6.32	pH	6.32 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0044 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB017[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB017[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3 mg/kg		3 mg/kg	0.0003 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		7 mg/kg	1.245	8.713 mg/kg	0.000871 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.81	pH		6.81	pH	6.81 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00463 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB013

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB013
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4 mg/kg	1.462	5.846 mg/kg	0.000585 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1 mg/kg	1.126	<1.126 mg/kg	<0.000113 %		<LOD
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	2 mg/kg		2 mg/kg	0.0002 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		9 mg/kg	1.245	11.202 mg/kg	0.00112 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.37	pH		6.37	pH	6.37 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00461 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: TP AB013[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB013[2]
Sample Depth:
3.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic } 033-001-00-X / 231-148-6 / 7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide } 005-008-00-8 / 215-125-8 / 1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide } 048-002-00-0 / 215-146-2 / 1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) } 215-160-9 / 1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex } 082-001-00-6	1	3 mg/kg		3 mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex } 080-002-00-6	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate } 028-037-00-8 / 238-946-3 / 14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite } 028-048-00-8 / 233-263-7 / 10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide } 030-013-00-7 / 215-222-5 / 1314-13-2		9 mg/kg	1.245	11.202 mg/kg	0.00112 %	✓	
12		TPH (C6 to C40) petroleum group TPH		1 mg/kg		1 mg/kg	0.0001 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X / 216-653-1 / 1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		benzene 601-020-00-8 / 200-753-7 / 71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15		toluene 601-021-00-3 / 203-625-9 / 108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16		ethylbenzene 601-023-00-4 / 202-849-4 / 100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17		xylene 601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.67	pH		5.67	pH	5.67 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00528 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: TP AB005

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB005
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11	mg/kg		11	mg/kg	0.0011 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17	mg/kg	1.245	21.16	mg/kg	0.00212 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		4	mg/kg		4	mg/kg	0.0004 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.33	pH		7.33	pH	7.33 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00909 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: TP AB007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB007
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		3 mg/kg		3 mg/kg	0.0003 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.13	pH		6.13	pH	6.13 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00735 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: TP AB011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB011	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<**LOD**
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		9	mg/kg	1.245	11.202	mg/kg	0.00112 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.46	pH		7.46	pH	7.46 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00674 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB012
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		3 mg/kg	1.462	4.385 mg/kg	0.000438 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2 mg/kg	2.806	5.611 mg/kg	0.000561 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		8 mg/kg	1.245	9.958 mg/kg	0.000996 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		4 mg/kg		4 mg/kg	0.0004 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.61	pH		6.61	pH	6.61 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00544 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: BHAB009

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BHAB009
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11 mg/kg	1.245	13.692 mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				4.69	pH		4.69	pH	4.69 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00743 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB006

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB006
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9	mg/kg	2.806	25.25	mg/kg	0.00253 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14	mg/kg	1.245	17.426	mg/kg	0.00174 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.26	pH		7.26	pH	7.26 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00859 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB006[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB006[2]
Sample Depth:
2.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4	mg/kg		4	mg/kg	0.0004 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17	mg/kg	1.462	24.846	mg/kg	0.00248 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10	mg/kg	1.126	11.259	mg/kg	0.00113 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9	mg/kg		9	mg/kg	0.0009 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15	mg/kg	2.806	42.083	mg/kg	0.00421 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25	mg/kg	1.245	31.118	mg/kg	0.00311 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.74	pH		7.74	pH	7.74 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0132 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB018
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		13 mg/kg		13 mg/kg	0.0013 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		25 mg/kg	1.462	36.539 mg/kg	0.00365 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	14 mg/kg		14 mg/kg	0.0014 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		47 mg/kg	1.245	58.502 mg/kg	0.00585 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.18	pH		5.18	pH	5.18 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0181 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB019

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB019
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		3	mg/kg	1.462	4.385	mg/kg	0.000438 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		1	mg/kg	1.126	1.126	mg/kg	0.000113 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	2	mg/kg		2	mg/kg	0.0002 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		7	mg/kg	1.245	8.713	mg/kg	0.000871 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.59	pH		6.59	pH	6.59 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00356 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB020

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB020
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2	mg/kg	2.806	5.611	mg/kg	0.000561 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		8	mg/kg	1.245	9.958	mg/kg	0.000996 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.06	pH		6.06	pH	6.06 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00447 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB022
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8	mg/kg	2.806	22.445	mg/kg	0.00224 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.99	pH		6.99	pH	6.99 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00685 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB027

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB027
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		1.1	mg/kg	3.22	3.542	mg/kg	0.000354 %	✓	
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11	mg/kg	1.126	12.385	mg/kg	0.00124 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19	mg/kg		19	mg/kg	0.0019 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		29	mg/kg	1.245	36.097	mg/kg	0.00361 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		33	mg/kg		33	mg/kg	0.0033 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.5	pH		6.5	pH	6.5 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			205-912-4	206-44-0									
26		pyrene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			204-927-3	129-00-0									
27		benzo[a]anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-883-8	191-24-2									
										Total:	0.0136 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0033%)

Classification of sample: BH AB027

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB027
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5	mg/kg		5	mg/kg	0.0005 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15	mg/kg	1.462	21.923	mg/kg	0.00219 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8	mg/kg	1.126	9.007	mg/kg	0.000901 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	28	mg/kg		28	mg/kg	0.0028 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9	mg/kg	2.806	25.25	mg/kg	0.00253 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		40	mg/kg	1.245	49.789	mg/kg	0.00498 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		5	mg/kg		5	mg/kg	0.0005 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.93	pH		5.93	pH	5.93 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0153 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP AB038

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB038
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13	mg/kg	1.462	19	mg/kg	0.0019 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10	mg/kg		10	mg/kg	0.001 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10	mg/kg	2.806	28.056	mg/kg	0.00281 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20	mg/kg	1.245	24.894	mg/kg	0.00249 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.9	pH		6.9	pH	6.9 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0101 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB030

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB030
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		6 mg/kg		6 mg/kg	0.0006 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		14 mg/kg	1.462	20.462 mg/kg	0.00205 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	12 mg/kg		12 mg/kg	0.0012 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		2 mg/kg	2.351	4.702 mg/kg	0.00047 %	✓	
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		12 mg/kg	1.245	14.937 mg/kg	0.00149 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				4.81	pH		4.81	pH	4.81 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
			203-458-1, 200-863-5	107-06-2, 75-34-3									
36		tetrachloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
37		carbon tetrachloride; tetrachloromethane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
38		trichloroethylene; trichloroethene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
39		vinyl chloride; chloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
40		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
										Total:	0.00899 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB033

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB033
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8	mg/kg	1.462	11.692	mg/kg	0.00117 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15	mg/kg	1.245	18.671	mg/kg	0.00187 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.94	pH		6.94	pH	6.94 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00703 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB020

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB020
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7	mg/kg	1.126	7.881	mg/kg	0.000788 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	19	mg/kg		19	mg/kg	0.0019 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23	mg/kg	1.245	28.628	mg/kg	0.00286 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		22	mg/kg		22	mg/kg	0.0022 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.19	pH		7.19	pH	7.19 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0127 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0022%)

Classification of sample: BH AB041

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB041
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		7	mg/kg		7	mg/kg	0.0007 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		149	mg/kg	1.462	217.772	mg/kg	0.0218 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		36	mg/kg	1.126	40.532	mg/kg	0.00405 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	24	mg/kg		24	mg/kg	0.0024 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		78	mg/kg	2.806	218.834	mg/kg	0.0219 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		60	mg/kg	1.245	74.683	mg/kg	0.00747 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		11	mg/kg		11	mg/kg	0.0011 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.39	pH		6.39	pH	6.39 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0603 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0011%)

Classification of sample: TP AB034

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB034
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3	mg/kg		3	mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		8	mg/kg	1.245	9.958	mg/kg	0.000996 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		1	mg/kg		1	mg/kg	0.0001 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.86	pH		6.86	pH	6.86 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00461 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: TP AB035

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB035
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7	mg/kg	1.142	0.8	mg/kg	0.00008 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8	mg/kg	1.126	9.007	mg/kg	0.000901 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13	mg/kg		13	mg/kg	0.0013 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11	mg/kg	2.806	30.861	mg/kg	0.00309 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34	mg/kg	1.245	42.32	mg/kg	0.00423 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		6	mg/kg		6	mg/kg	0.0006 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.58	pH		7.58	pH	7.58 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0128 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP AB035[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB035[2]
Sample Depth:
1.4 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		4 mg/kg		4 mg/kg	0.0004 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		1 mg/kg	1.142	1.142 mg/kg	0.000114 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		11 mg/kg	1.126	12.385 mg/kg	0.00124 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	12 mg/kg		12 mg/kg	0.0012 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		18 mg/kg	2.806	50.5 mg/kg	0.00505 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		1 mg/kg	2.351	2.351 mg/kg	0.000235 %	✓	
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		34 mg/kg	1.245	42.32 mg/kg	0.00423 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.99	pH		6.99	pH	6.99 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0158 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB015
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8	mg/kg		8	mg/kg	0.0008 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		2	mg/kg		2	mg/kg	0.0002 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.21	pH		7.21	pH	7.21 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00702 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: WS AB007

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS AB007
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		2	mg/kg		2	mg/kg	0.0002 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.16	pH		6.16	pH	6.16 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00567 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH AB042

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB042
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7	mg/kg	1.142	0.8	mg/kg	0.00008 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16	mg/kg	1.462	23.385	mg/kg	0.00234 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10	mg/kg	1.126	11.259	mg/kg	0.00113 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9	mg/kg		9	mg/kg	0.0009 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		13	mg/kg	2.806	36.472	mg/kg	0.00365 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		26	mg/kg	1.245	32.363	mg/kg	0.00324 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		2	mg/kg		2	mg/kg	0.0002 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.47	pH		7.47	pH	7.47 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0125 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: TP AB041

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB041
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3	mg/kg		3	mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		9	mg/kg	1.245	11.202	mg/kg	0.00112 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.75	pH		6.75	pH	6.75 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00459 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB041[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB041[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	8.769 mg/kg	0.000877 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		12 mg/kg	1.245	14.937 mg/kg	0.00149 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.93	pH		6.93	pH	6.93 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0061 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB044

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB044
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8	mg/kg	1.126	9.007	mg/kg	0.000901 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	23	mg/kg		23	mg/kg	0.0023 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6	mg/kg	2.806	16.833	mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		30	mg/kg	1.245	37.341	mg/kg	0.00373 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		31	mg/kg		31	mg/kg	0.0031 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.41	pH		6.41	pH	6.41 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0153 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0031%)

Classification of sample: BH AB044[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB044[2]
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16	mg/kg	1.462	23.385	mg/kg	0.00234 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11	mg/kg	1.126	12.385	mg/kg	0.00124 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9	mg/kg		9	mg/kg	0.0009 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11	mg/kg	2.806	30.861	mg/kg	0.00309 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		28	mg/kg	1.245	34.852	mg/kg	0.00349 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.97	pH		6.97	pH	6.97 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0122 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB014	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.82	pH		6.82	pH	6.82 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00815 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB039

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB039	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7	mg/kg		7	mg/kg	0.0007 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<**LOD**
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16	mg/kg	1.245	19.915	mg/kg	0.00199 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		3	mg/kg		3	mg/kg	0.0003 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.21	pH		6.21	pH	6.21 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00629 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: TP AB039[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB039[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3 mg/kg		3 mg/kg	0.0003 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11 mg/kg	1.245	13.692 mg/kg	0.00137 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.04	pH		7.04	pH	7.04 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00612 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB040

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB040

Sample Depth:
1 m

LoW Code:

Chapter:
17: Construction and Demolition Wastes (including excavated soil from contaminated sites)

Entry:
17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13	mg/kg	1.462	19	mg/kg	0.0019 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<**LOD**
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9	mg/kg	2.806	25.25	mg/kg	0.00253 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		1	mg/kg		1	mg/kg	0.0001 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		7.7	pH		7.7	pH	7.7 pH		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
20		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
21		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
22		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
23		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
24		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
25		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
26		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
27		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
28		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
29		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
31		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
32		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
33		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
34		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
										Total:	0.00794 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: BH AB045

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB045	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19	mg/kg	1.462	27.77	mg/kg	0.00278 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	13.511	mg/kg	0.00135 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11	mg/kg		11	mg/kg	0.0011 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15	mg/kg	2.806	42.083	mg/kg	0.00421 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		25	mg/kg	1.245	31.118	mg/kg	0.00311 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.25	pH		7.25	pH	7.25 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0137 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB052

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB052	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.9 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<**LOD**
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<**LOD**
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	0.76	mg/kg		0.76	mg/kg	0.000076 %	✓	
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6	mg/kg	2.806	16.833	mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<**LOD**
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		3	mg/kg		3	mg/kg	0.0003 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		6.64	pH		6.64	pH	6.64 pH		
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00722 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0003%)

Classification of sample: TP AB014

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB014	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.6 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	8.769 mg/kg	0.000877 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10 mg/kg	1.245	12.447 mg/kg	0.00124 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.63	pH		6.63	pH	6.63 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00558 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP AB018

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB018
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.91	pH		7.91	pH	7.91 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00676 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB042

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB042	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.7 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	7.308 mg/kg	0.000731 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		8 mg/kg	1.245	9.958 mg/kg	0.000996 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.71	pH		6.71	pH	6.71 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00439 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB011

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB011
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6 mg/kg		6 mg/kg	0.0006 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.19	pH		6.19	pH	6.19 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00762 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB043

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB043	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	16 mg/kg		16 mg/kg	0.0016 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		38 mg/kg	1.245	47.299 mg/kg	0.00473 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		75 mg/kg		75 mg/kg	0.0075 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		6.88	pH		6.88	pH	6.88 pH		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
20		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
21		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
24		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
25		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
26		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
27		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
28		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
29		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
31		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
32		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
33		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
34		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
										Total:	0.0219 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0075%)

Classification of sample: TP AB036

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB036	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.7 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		5 mg/kg		5 mg/kg	0.0005 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.37	pH		7.37	pH	7.37 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00691 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0005%)

Classification of sample: TP AB037

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB037	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	7.308 mg/kg	0.000731 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14 mg/kg		14 mg/kg	0.0014 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17 mg/kg	1.245	21.16 mg/kg	0.00212 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		13 mg/kg		13 mg/kg	0.0013 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7	pH		7	pH	7pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.00885 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0013%)

Classification of sample: TP AB037[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB037[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8	mg/kg	1.462	11.692	mg/kg	0.00117 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6	mg/kg	2.806	16.833	mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.16	pH		7.16	pH	7.16 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
35		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
			203-458-1, 200-863-5	107-06-2, 75-34-3									
36		tetrachloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
37		carbon tetrachloride; tetrachloromethane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
38		trichloroethylene; trichloroethene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
39		vinyl chloride; chloroethylene				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
40		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
										Total:	0.00583 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB040

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB040
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4	mg/kg	1.462	5.846	mg/kg	0.000585 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	2	mg/kg		2	mg/kg	0.0002 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		6	mg/kg	1.245	7.468	mg/kg	0.000747 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		103	mg/kg		103	mg/kg	0.0103 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3							
19	●	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8							
20	●	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9							
21	●	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7							
22	●	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8							
23	●	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7							
24	●	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0							
25	●	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0							
26		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3							
27		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9							
28		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2							
29		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9							
30		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8							
31	●	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5							
32		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3							
33	●	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2							
34	●	1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
			203-458-1, 200-863-5	107-06-2, 75-34-3							
35		tetrachloroethylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
		602-028-00-4	204-825-9	127-18-4							
36		carbon tetrachloride; tetrachloromethane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5							
37		trichloroethylene; trichloroethene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6							
38		vinyl chloride; chloroethylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
		602-023-00-7	200-831-0	75-01-4							
39		hexachlorobenzene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		602-065-00-6	204-273-9	118-74-1							
40		asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							
								Total:	0.0149 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.0103%)
xylene: (conc.: 4.0e-06%)

Classification of sample: BH AB026

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB026
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		18 mg/kg		18 mg/kg	0.0018 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.41	pH		6.41	pH	6.41 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0101 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0018%)

Classification of sample: BH AB026[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH AB026[2]	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
1.2 m	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4 mg/kg		4 mg/kg	0.0004 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6 mg/kg	2.806	16.833 mg/kg	0.00168 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11 mg/kg	1.245	13.692 mg/kg	0.00137 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		17 mg/kg		17 mg/kg	0.0017 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH		PH		6.61	pH		6.61	pH	6.61 pH		
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0081 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0017%)

Classification of sample: BH AB015

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB015
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	23 mg/kg		23 mg/kg	0.0023 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17 mg/kg	1.245	21.16 mg/kg	0.00212 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		17 mg/kg		17 mg/kg	0.0017 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.19	pH		6.19	pH	6.19 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0109 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0017%)

Classification of sample: BH AB039

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB039	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.96	pH		6.96	pH	6.96 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00885 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: TP AB024

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB024
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		8 mg/kg		8 mg/kg	0.0008 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		6 mg/kg		6 mg/kg	0.0006 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		5.95	pH		5.95	pH	5.95 pH		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
20		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
21		acenaphthene	201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
22		fluorene	201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
23		phenanthrene	201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
24		anthracene	204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
25		fluoranthene	205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
26		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
27		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
28		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
29		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
31		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
32		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
33		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
34		benzo[ghi]perylene	205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
										Total:	0.00803 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: TP AB026

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB026	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.6 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		4 mg/kg		4 mg/kg	0.0004 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
19		pH 	 	 PH		6.1 pH		6.1 pH	6.1 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
21		acenaphthylene 	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
22		acenaphthene 	201-469-6	83-32-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
23		fluorene 	201-695-5	86-73-7		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
24		phenanthrene 	201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
25		anthracene 	204-371-1	120-12-7		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
26		fluoranthene 	205-912-4	206-44-0		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<LOD
27		pyrene 	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
								Total:	0.00653 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: BH AB024

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB024
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4	mg/kg		4	mg/kg	0.0004 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1	mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		12	mg/kg	1.245	14.937	mg/kg	0.00149 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.02	pH		6.02	pH	6.02 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0054 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB031

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB031
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1	mg/kg		1	mg/kg	0.0001 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4	mg/kg	1.462	5.846	mg/kg	0.000585 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		1	mg/kg	1.126	1.126	mg/kg	0.000113 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.15	pH		6.15	pH	6.15 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00466 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB032

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB032
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3	mg/kg		3	mg/kg	0.0003 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9	mg/kg	2.806	25.25	mg/kg	0.00253 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		17	mg/kg	1.245	21.16	mg/kg	0.00212 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.32	pH		6.32	pH	6.32 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00848 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB012A

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB012A
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1	mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		7	mg/kg	1.245	8.713	mg/kg	0.000871 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		2	mg/kg		2	mg/kg	0.0002 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.37	pH		7.37	pH	7.37 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00483 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH AB021

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB021
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14	mg/kg	1.245	17.426	mg/kg	0.00174 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.98	pH		5.98	pH	5.98 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00733 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB022

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB022
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6 mg/kg		6 mg/kg	0.0006 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11 mg/kg		11 mg/kg	0.0011 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		19 mg/kg	1.245	23.65 mg/kg	0.00236 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.65	pH		5.65	pH	5.65 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00911 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB055

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB055
Sample Depth:
0.8 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6	mg/kg	2.806	16.833	mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.98	pH		7.98	pH	7.98 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00601 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB056

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB056
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8	mg/kg		8	mg/kg	0.0008 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12	mg/kg	2.806	33.667	mg/kg	0.00337 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21	mg/kg	1.245	26.139	mg/kg	0.00261 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.68	pH		7.68	pH	7.68 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0107 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB019A

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB019A
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		10 mg/kg		10 mg/kg	0.001 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		38 mg/kg	1.462	55.539 mg/kg	0.00555 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	18 mg/kg		18 mg/kg	0.0018 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		21 mg/kg	2.806	58.917 mg/kg	0.00589 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		2 mg/kg	2.351	4.702 mg/kg	0.00047 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		64 mg/kg	1.245	79.662 mg/kg	0.00797 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		1 mg/kg		1 mg/kg	0.0001 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.49	pH		6.49	pH	6.49 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0241 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: BH AB023

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB023
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6 mg/kg		6 mg/kg	0.0006 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17 mg/kg		17 mg/kg	0.0017 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		20 mg/kg	1.245	24.894 mg/kg	0.00249 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.73	pH		5.73	pH	5.73 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0103 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: BH AB030

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB030
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		25 mg/kg		25 mg/kg	0.0025 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		16 mg/kg	1.462	23.385 mg/kg	0.00234 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		52 mg/kg	1.126	58.546 mg/kg	0.00585 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	32 mg/kg		32 mg/kg	0.0032 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		63 mg/kg	2.806	176.751 mg/kg	0.0177 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		25 mg/kg	1.245	31.118 mg/kg	0.00311 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				8.22	pH		8.22	pH	8.22 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0357 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB029

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB029
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4	mg/kg		4	mg/kg	0.0004 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7	mg/kg		7	mg/kg	0.0007 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9	mg/kg	2.806	25.25	mg/kg	0.00253 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22	mg/kg	1.245	27.384	mg/kg	0.00274 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.15	pH		7.15	pH	7.15 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00904 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB012

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB012
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6 mg/kg		6 mg/kg	0.0006 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.5 mg/kg	1.142	0.571 mg/kg	0.0000571 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		24 mg/kg	1.462	35.077 mg/kg	0.00351 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14 mg/kg		14 mg/kg	0.0014 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		17 mg/kg	2.806	47.695 mg/kg	0.00477 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		38 mg/kg	1.245	47.299 mg/kg	0.00473 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.64	pH		6.64	pH	6.64 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.0169 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB047

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB047
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		4	mg/kg	1.462	5.846	mg/kg	0.000585 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1	mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3	mg/kg		3	mg/kg	0.0003 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2	mg/kg	2.806	5.611	mg/kg	0.000561 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		<5	mg/kg	1.245	<6.224	mg/kg	<0.000622 %		<LOD
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.48	pH		6.48	pH	6.48 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00327 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB047[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB047[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		4 mg/kg		4 mg/kg	0.0004 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		<1 mg/kg	1.126	<1.126 mg/kg	<0.000113 %		<LOD
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	5 mg/kg		5 mg/kg	0.0005 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		10 mg/kg	1.245	12.447 mg/kg	0.00124 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.67	pH		6.67	pH	6.67 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00638 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB050

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB050
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		<1	mg/kg	1.462	<1.462	mg/kg	<0.000146 %		<LOD
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1	mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		<1	mg/kg	2.806	<2.806	mg/kg	<0.000281 %		<LOD
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		<5	mg/kg	1.245	<6.224	mg/kg	<0.000622 %		<LOD
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.59	pH		5.59	pH	5.59 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00235 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB044

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB044
Sample Depth:
0.7 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1	mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6	mg/kg	2.806	16.833	mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13	mg/kg	1.245	16.181	mg/kg	0.00162 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.45	pH		6.45	pH	6.45 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00613 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB044[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB044[2]
Sample Depth:
1.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	7 mg/kg		7 mg/kg	0.0007 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		11 mg/kg	2.806	30.861 mg/kg	0.00309 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.01	pH		7.01	pH	7.01 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00916 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB045

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB045
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		1 mg/kg	1.126	1.126 mg/kg	0.000113 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8 mg/kg		8 mg/kg	0.0008 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9 mg/kg	2.806	25.25 mg/kg	0.00253 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				5.39	pH		5.39	pH	5.39 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00895 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB025

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB025
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5 mg/kg		5 mg/kg	0.0005 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	12.385 mg/kg	0.00124 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	29 mg/kg		29 mg/kg	0.0029 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		8 mg/kg	2.806	22.445 mg/kg	0.00224 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		38 mg/kg	1.245	47.299 mg/kg	0.00473 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		13 mg/kg		13 mg/kg	0.0013 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.55	pH		7.55	pH	7.55 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0157 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0013%)

Classification of sample: TP AB023

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB023
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		5	mg/kg		5	mg/kg	0.0005 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	8	mg/kg		8	mg/kg	0.0008 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		11	mg/kg	2.806	30.861	mg/kg	0.00309 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23	mg/kg	1.245	28.628	mg/kg	0.00286 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.03	pH		7.03	pH	7.03 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0107 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB023[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB023[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		5 mg/kg		5 mg/kg	0.0005 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	7 mg/kg		7 mg/kg	0.0007 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7	pH		7	pH	7pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0093 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB033

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB033
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	7 mg/kg		7 mg/kg	0.0007 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		11 mg/kg	1.245	13.692 mg/kg	0.00137 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.91	pH		6.91	pH	6.91 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00688 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB033[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB033[2]
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	7 mg/kg		7 mg/kg	0.0007 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		12 mg/kg	1.245	14.937 mg/kg	0.00149 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		1 mg/kg		1 mg/kg	0.0001 %	✓	
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.47	pH		6.47	pH	6.47 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00689 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0001%)

Classification of sample: BH AB038

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB038
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.43	pH		7.43	pH	7.43 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00739 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB034

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB034
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.38	pH		7.38	pH	7.38 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0057 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB051

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB051
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1	mg/kg	1.126	<1.126	mg/kg	<0.000113 %		<LOD
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.04	pH		7.04	pH	7.04 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00545 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB051[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB051[2]
Sample Depth:
1.3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	8.769 mg/kg	0.000877 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3 mg/kg		3 mg/kg	0.0003 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5 mg/kg	2.806	14.028 mg/kg	0.0014 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10 mg/kg	1.245	12.447 mg/kg	0.00124 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.94	pH		6.94	pH	6.94 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00514 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB053

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB053
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6	mg/kg		6	mg/kg	0.0006 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6	mg/kg	1.142	0.685	mg/kg	0.0000685 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23	mg/kg	1.462	33.616	mg/kg	0.00336 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10	mg/kg	1.126	11.259	mg/kg	0.00113 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11	mg/kg		11	mg/kg	0.0011 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		21	mg/kg	2.806	58.917	mg/kg	0.00589 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		37	mg/kg	1.245	46.054	mg/kg	0.00461 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.54	pH		7.54	pH	7.54 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0177 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB054

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB054
Sample Depth:
0.6 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13	mg/kg		13	mg/kg	0.0013 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		29	mg/kg	1.245	36.097	mg/kg	0.00361 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		7	mg/kg		7	mg/kg	0.0007 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.12	pH		6.12	pH	6.12 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0107 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: TP AB.borrowpit02

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB.borrowpit02
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		6	mg/kg		6	mg/kg	0.0006 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		9	mg/kg	2.806	25.25	mg/kg	0.00253 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.3	pH		6.3	pH	6.3 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00802 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB.borrowpit03

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB.borrowpit03
Sample Depth:
0.75 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	3 mg/kg		3 mg/kg	0.0003 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		8 mg/kg	1.245	9.958 mg/kg	0.000996 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.08	pH		6.08	pH	6.08 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
										Total:	0.00596 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB046

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB046
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		4 mg/kg		4 mg/kg	0.0004 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7 mg/kg	1.142	0.8 mg/kg	0.00008 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		23 mg/kg	1.462	33.616 mg/kg	0.00336 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14 mg/kg	1.126	15.762 mg/kg	0.00158 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		17 mg/kg	2.806	47.695 mg/kg	0.00477 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.33	pH		7.33	pH	7.33 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0147 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB047

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB047
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.7	mg/kg	1.142	0.8	mg/kg	0.00008 %	✓	
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19	mg/kg	1.462	27.77	mg/kg	0.00278 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14	mg/kg	1.126	15.762	mg/kg	0.00158 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9	mg/kg		9	mg/kg	0.0009 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		14	mg/kg	2.806	39.278	mg/kg	0.00393 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		23	mg/kg	1.245	28.628	mg/kg	0.00286 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.84	pH		6.84	pH	6.84 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0133 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB047[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB047[2]
Sample Depth:
1 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		18 mg/kg	1.462	26.308 mg/kg	0.00263 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		14 mg/kg	1.126	15.762 mg/kg	0.00158 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	9 mg/kg		9 mg/kg	0.0009 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		14 mg/kg	2.806	39.278 mg/kg	0.00393 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		24 mg/kg	1.245	29.873 mg/kg	0.00299 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.8	pH		6.8	pH	6.8 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0132 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB035

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB035
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		5	mg/kg	2.806	14.028	mg/kg	0.0014 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.37	pH		7.37	pH	7.37 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00542 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB046

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB046
Sample Depth:
3 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5 mg/kg	1.126	5.629 mg/kg	0.000563 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7 mg/kg		7 mg/kg	0.0007 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		12 mg/kg	2.806	33.667 mg/kg	0.00337 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.89	pH		7.89	pH	7.89 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00991 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB048

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB048
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7	mg/kg		7	mg/kg	0.0007 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		10	mg/kg	2.806	28.056	mg/kg	0.00281 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13	mg/kg	1.245	16.181	mg/kg	0.00162 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.26	pH		7.26	pH	7.26 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00852 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB048[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB048[2]
Sample Depth:
1.0 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		3 mg/kg		3 mg/kg	0.0003 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	7 mg/kg		7 mg/kg	0.0007 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		10 mg/kg	2.806	28.056 mg/kg	0.00281 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		14 mg/kg	1.245	17.426 mg/kg	0.00174 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				7.29	pH		7.29	pH	7.29 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00837 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB049

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB049
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8	mg/kg	1.462	11.692	mg/kg	0.00117 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	11	mg/kg		11	mg/kg	0.0011 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		6	mg/kg	2.806	16.833	mg/kg	0.00168 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		19	mg/kg	1.245	23.65	mg/kg	0.00236 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		13	mg/kg		13	mg/kg	0.0013 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.55	pH		6.55	pH	6.55 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0103 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0013%)

Classification of sample: TP AB049[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB049[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
1 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9 mg/kg	1.462	13.154 mg/kg	0.00132 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6 mg/kg		6 mg/kg	0.0006 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		13 mg/kg	1.245	16.181 mg/kg	0.00162 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.91	pH		6.91	pH	6.91 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00692 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB036

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB036	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	7.308 mg/kg	0.000731 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4 mg/kg		4 mg/kg	0.0004 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		2 mg/kg	2.806	5.611 mg/kg	0.000561 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		8 mg/kg	1.245	9.958 mg/kg	0.000996 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.51	pH		6.51	pH	6.51 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00401 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB037

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
BH AB037	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	10.231 mg/kg	0.00102 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	17 mg/kg		17 mg/kg	0.0017 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		39 mg/kg		39 mg/kg	0.0039 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				5.91	pH		5.91	pH	5.91 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			205-883-8	191-24-2									
36		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
37		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0126 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0039%)

Classification of sample: BH AB037[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB037[2]
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4	mg/kg	2.806	11.222	mg/kg	0.00112 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10	mg/kg	1.245	12.447	mg/kg	0.00124 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		4	mg/kg		4	mg/kg	0.0004 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.27	pH		6.27	pH	6.27 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00547 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: TP AB029

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB029
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2	mg/kg		2	mg/kg	0.0002 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3	mg/kg	2.806	8.417	mg/kg	0.000842 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		7	mg/kg	1.245	8.713	mg/kg	0.000871 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		4	mg/kg		4	mg/kg	0.0004 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.3	pH		6.3	pH	6.3 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00491 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0004%)

Classification of sample: TP AB031

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB031
Sample Depth:
1.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		11	mg/kg	1.245	13.692	mg/kg	0.00137 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.18	pH		6.18	pH	6.18 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0063 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB032

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB032
Sample Depth:
2.4 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8 mg/kg	1.462	11.692 mg/kg	0.00117 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4 mg/kg	1.126	4.504 mg/kg	0.00045 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4 mg/kg		4 mg/kg	0.0004 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		12 mg/kg	1.245	14.937 mg/kg	0.00149 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH				6.7	pH		6.7	pH	6.7 pH		
				PH									
19		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
22		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
23		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
24		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
25		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
26		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00657 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH AB025

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB025
Sample Depth:
0.2 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		9	mg/kg		9	mg/kg	0.0009 %	✓	
2		boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1	mg/kg	3.22	<3.22	mg/kg	<0.000322 %		<LOD
3		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5	mg/kg	1.142	<0.571	mg/kg	<0.0000571 %		<LOD
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %	✓	
5		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1	mg/kg	1.923	<1.923	mg/kg	<0.000192 %		<LOD
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	14	mg/kg		14	mg/kg	0.0014 %	✓	
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17	mg/kg		<0.17	mg/kg	<0.000017 %		<LOD
9		nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7	mg/kg	2.806	19.639	mg/kg	0.00196 %	✓	
10		selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1	mg/kg	2.351	<2.351	mg/kg	<0.000235 %		<LOD
11		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		22	mg/kg	1.245	27.384	mg/kg	0.00274 %	✓	
12		TPH (C6 to C40) petroleum group			TPH		6	mg/kg		6	mg/kg	0.0006 %	✓	
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
15		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
16		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.2	pH		6.2	pH	6.2 pH		
				PH									
20		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
			205-912-4	206-44-0									
27		pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
36		asbestos				<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
										Total:	0.0121 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: BH AB048

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
BH AB048
Sample Depth:
0.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		1 mg/kg		1 mg/kg	0.0001 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		6 mg/kg	1.462	8.769 mg/kg	0.000877 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2 mg/kg	1.126	2.252 mg/kg	0.000225 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	13 mg/kg		13 mg/kg	0.0013 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		3 mg/kg	2.806	8.417 mg/kg	0.000842 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				6.76	pH		6.76	pH	6.76 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-917-1	208-96-8									
21	●	acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
22	●	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
23	●	phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-581-5	85-01-8									
24	●	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
25	●	fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			205-883-8	191-24-2									
										Total:	0.00633 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB.borrowpit04

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP AB.borrowpit04	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
0.5 m	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	16.077 mg/kg	0.00161 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3 mg/kg	1.126	3.378 mg/kg	0.000338 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6 mg/kg		6 mg/kg	0.0006 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		7 mg/kg	2.806	19.639 mg/kg	0.00196 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10 mg/kg	1.245	12.447 mg/kg	0.00124 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]							
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
19		pH 		PH		6.32 pH		6.32 pH	6.32 pH		
20		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
21		acenaphthylene 	205-917-1	208-96-8		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
22		acenaphthene 	201-469-6	83-32-9		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
23		fluorene 	201-695-5	86-73-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
24		phenanthrene 	201-581-5	85-01-8		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
25		anthracene 	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
26		fluoranthene 	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
27		pyrene 	204-927-3	129-00-0		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<**LOD**
28		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<**LOD**
29		chrysene 601-048-00-0	205-923-4	218-01-9		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
30		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		<**LOD**
31		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
33		indeno[123-cd]pyrene 	205-893-2	193-39-5		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
34		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
35		benzo[ghi]perylene 	205-883-8	191-24-2		<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		<**LOD**
								Total:	0.00704 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB002

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB002	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		5 mg/kg	1.462	7.308 mg/kg	0.000731 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		<1 mg/kg	1.126	<1.126 mg/kg	<0.000113 %		<LOD
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5 mg/kg		5 mg/kg	0.0005 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		4 mg/kg	2.806	11.222 mg/kg	0.00112 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		10 mg/kg	1.245	12.447 mg/kg	0.00124 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		2 mg/kg		2 mg/kg	0.0002 %	✓	
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18		pH		PH		5.93	pH		5.93	pH	5.93 pH		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
20		acenaphthylene	205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
21		acenaphthene	201-469-6	83-32-9		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
22		fluorene	201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
23		phenanthrene	201-581-5	85-01-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
24		anthracene	204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
25		fluoranthene	205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
26		pyrene	204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
27		benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
28		chrysene 601-048-00-0	205-923-4	218-01-9		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
29		benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
30		benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
31		benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
32		indeno[123-cd]pyrene	205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
33		dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
34		benzo[ghi]perylene	205-883-8	191-24-2		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
										Total:	0.0049 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because The risk phrase HP 3 (i) Flammable is unlikely to apply to this waste stream. This is due to the solid soil and natural moisture content of the sample. The concentration required to provide a flammability risk is likely to be >10,000mg. This risk of flammability from solid state soils <1000mg/kg TPH is negligible and has been deemed non-hazardous if below this concentration.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0002%)

Classification of sample: TP AB004

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB004

Sample Depth:
1 m

LoW Code:

Chapter:
17: Construction and Demolition Wastes (including excavated soil from contaminated sites)

Entry:
17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<**LOD**
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		0.6 mg/kg	1.142	0.685 mg/kg	0.0000685 %	✓	
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		10 mg/kg	1.462	14.616 mg/kg	0.00146 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<**LOD**
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		6 mg/kg	1.126	6.755 mg/kg	0.000676 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	6 mg/kg		6 mg/kg	0.0006 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<**LOD**
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		9 mg/kg	2.806	25.25 mg/kg	0.00253 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<**LOD**
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		16 mg/kg	1.245	19.915 mg/kg	0.00199 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<**LOD**
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00836 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB057

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB057
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		2 mg/kg		2 mg/kg	0.0002 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.2 mg/kg	1.142	1.371 mg/kg	0.000137 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	24.846 mg/kg	0.00248 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14 mg/kg	1.126	15.762 mg/kg	0.00158 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	10 mg/kg		10 mg/kg	0.001 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		28 mg/kg	2.806	78.556 mg/kg	0.00786 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		35 mg/kg	1.245	43.565 mg/kg	0.00436 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.91	pH		7.91	pH	7.91 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0185 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB059

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
TP AB059	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.5 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number / EC Number / CAS Number							
1		arsenic { arsenic }		2 mg/kg		2 mg/kg	0.0002 %	✓	
		033-001-00-X / 231-148-6 / 7440-38-2							
2		boron { diboron trioxide; boric oxide }		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
		005-008-00-8 / 215-125-8 / 1303-86-2							
3		cadmium { cadmium oxide }		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
		048-002-00-0 / 215-146-2 / 1306-19-0							
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		13 mg/kg	1.462	19 mg/kg	0.0019 %	✓	
		/ 215-160-9 / 1308-38-9							
5		chromium in chromium(VI) compounds { chromium(VI) oxide }		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
		024-001-00-0 / 215-607-8 / 1333-82-0							
6		copper { dicopper oxide; copper (I) oxide }		10 mg/kg	1.126	11.259 mg/kg	0.00113 %	✓	
		029-002-00-X / 215-270-7 / 1317-39-1							
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	9 mg/kg		9 mg/kg	0.0009 %	✓	
		082-001-00-6 / /							
8		mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
		080-002-00-6 / /							
9		nickel { dinickel hexacyanoferrate }		13 mg/kg	2.806	36.472 mg/kg	0.00365 %	✓	
		028-037-00-8 / 238-946-3 / 14874-78-3							
10		selenium { nickel(II) selenite }		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
		028-048-00-8 / 233-263-7 / 10101-96-9							
11		zinc { zinc oxide }		15 mg/kg	1.245	18.671 mg/kg	0.00187 %	✓	
		030-013-00-7 / 215-222-5 / 1314-13-2							
12		TPH (C6 to C40) petroleum group		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
		/ / TPH							
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		603-181-00-X / 216-653-1 / 1634-04-4							
14		benzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-020-00-8 / 200-753-7 / 71-43-2							
15		toluene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-021-00-3 / 203-625-9 / 108-88-3							
16		ethylbenzene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-023-00-4 / 202-849-4 / 100-41-4							
17		xylene		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-022-00-9 / 202-422-2 [1] 203-396-5 [2] / 95-47-6 [1] 106-42-3 [2]							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				7.84	pH		7.84	pH	7.84 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0106 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP AB059[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP AB059[2]
Sample Depth:
1.5 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		3 mg/kg		3 mg/kg	0.0003 %	✓	
2	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		<1 mg/kg	3.22	<3.22 mg/kg	<0.000322 %		<LOD
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1 mg/kg	1.923	<1.923 mg/kg	<0.000192 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	10.133 mg/kg	0.00101 %	✓	
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9 mg/kg		9 mg/kg	0.0009 %	✓	
8	mercury { inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex }	080-002-00-6			1	<0.17 mg/kg		<0.17 mg/kg	<0.000017 %		<LOD
9	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3		15 mg/kg	2.806	42.083 mg/kg	0.00421 %	✓	
10	selenium { nickel(II) selenite }	028-048-00-8	233-263-7	10101-96-9		<1 mg/kg	2.351	<2.351 mg/kg	<0.000235 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21 mg/kg	1.245	26.139 mg/kg	0.00261 %	✓	
12	TPH (C6 to C40) petroleum group			TPH		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
13	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
14	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
17	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2]	95-47-6 [1] 106-42-3 [2]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
			203-576-3 [3] 215-535-7 [4]	108-38-3 [3] 1330-20-7 [4]									
18	●	pH				8.34	pH		8.34	pH	8.34 pH		
				PH									
19		naphthalene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
20	●	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-917-1	208-96-8									
21	●	acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			201-469-6	83-32-9									
22	●	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-695-5	86-73-7									
23	●	phenanthrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			201-581-5	85-01-8									
24	●	anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
25	●	fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-912-4	206-44-0									
26	●	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			204-927-3	129-00-0									
27		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
28		chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
29		benzo[b]fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
30		benzo[k]fluoranthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
31		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
32	●	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
			205-893-2	193-39-5									
33		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
34	●	benzo[ghi]perylene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0122 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

CLP index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers many simple lead compounds to be Carcinogenic category 2
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: [redacted]
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: [redacted]
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: [redacted]
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **1,1-dichloroethane and 1,2-dichloroethane (combined)** (EC Number: 203-458-1, 200-863-5, CAS Number: 107-06-2, 75-34-3)

Description/Comments: Combines the hazard statements and risk phrases for 1,1-dichloroethane and 1,2-dichloroethane
Data source: N/a
Data source date: 14 Oct 2016
Hazard Statements: Flam. Liq. 2 H225 , Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 1B H350 , Aquatic Chronic 3 H412

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

arsenic could be present on agricultural land due to application of insecticide/wood preservative.

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

mercury {inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in this Annex}

Reasonable worst-case compound as the sites have a very limited industrial history.

nickel {dinickel hexacyanoferrate}

Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

selenium {nickel(II) selenite}

nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

zinc {zinc oxide}

Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2021.293.4891.9295 (20 Oct 2021)
HazWasteOnline Database: 2021.293.4891.9295 (20 Oct 2021)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2019 - UK: 2019 No. 720 of 27th March 2019
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

E Final Factual Report

Structural Soils Limited. A66 Northern Trans-Pennine, Factual Report on Ground Investigation, Package A, Kirkby Thore to Brough, 2021.

Issued under separate cover.

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Ground Investigation Report Package B M6 Junction 40 to Temple Sowerby

GDMS No: 34041

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APPENDICES

TABLES

FIGURES

1 Introduction

1.1 Scope and Objectives of the Report

1.1.1 As part of the Roads Investment Strategy 2, the United Kingdom Government Department for Transport has provided funding to further develop the business case for dualling the remaining single carriageway sections of the A66 and making other improvements along its length. National Highways is responsible for development of this scheme, subsequently referred to as the A66 Northern Trans-Pennine Project (A66-NTP).

1.1.2 National Highways is progressing the project in accordance with their Project Control Framework (PCF) and appointed Amey to progress the project through PCF Stage 3 to PCF Stage 7. Amey as Principal Designers have appointed several sub – contract parties. Arup are appointed to work in collaboration with Amey as Designers.

1.1.3 A key deliverable for PCF Stage 3 is a Ground Investigation Report (GIR). Requirements for its contents are given in CD622 Managing Geotechnical Risk (1).

1.1.4 The GIR reports on part of the geotechnical design process as set out in Eurocode 7 (2). It forms part of the Geotechnical Design Report (GDR) and in particular reports on the results of the geotechnical investigation. The geotechnical investigation commenced with the Statement of Intent (SOI) and the Preliminary Sources Study Report (PSSR) defined in CD622. This report, the GIR, makes reference to the PSSR (3).

1.2 Brief Discussion of the Project

1.2.1 The preferred route alignment for the project is defined in a National Highways (formerly Highways England) publication dated Spring 2020, entitled "*A66 Northern Trans-Pennine Project Preferred Route Announcement"*. This document is available on their website. Some relevant content from this publication is given below to provide background and context to this current report.

1.2.2 National Highways has been commissioned by the Department for Transport (DfT) to investigate the potential to improve the A66 between M6 junction 40 at Penrith and the A1(M) at Scotch Corner, which is a corridor of 50 miles. This is in order to address the lack of east / west connectivity across the Pennines in the north of England. The principal objective of the proposal is to eliminate all remaining single carriageway sections of the trunk road constructing new dual carriageway sections linking the improvements that have been carried out since the 1970's.

1.2.3 The project is defined as a Nationally Significant Infrastructure Project in terms of the Planning Act 2008. Consequently, a Development Consent Order (DCO) will be required to proceed to construction. The limits of the scheme development will be determined by the 'DCO boundary'.

1.2.4 Figure 1-1 below provides an overview of the whole project route corridor, shown in green between Penrith in the west and Scotch Corner to the east. Within this corridor, Schemes A through D were identified. Within each package, separate schemes will be developed by the Designers. Together, these schemes will provide the basis for the DCO submission and subsequent construction. Very broadly, schemes to the west of the junction of the A685 at Brough will be developed by Amey (Packages A and B) and those to the east by ARUP (Packages C and D). A collaborative approach has been adopted to maintain consistency of reporting methodologies between the Amey and ARUP design teams. The GIR is a deliverable for PCF Stage 3. The design development identifies those route packages (A and B) and associated scheme sections being progressed by Amey as follows:

- M6 Junction 40 to Kemplay Bank Roundabout (B)
- Penrith to Temple Sowerby (Center Parcs) (B)
- Temple Sowerby to Appleby Kirkby Thore (A)
- Temple Sowerby to Appleby Crackenthorpe (A)
- Appleby to Brough (Warcop) (A)

Figure 1-1 : A66 Northern Trans-Pennine Project Location

1.2.5 The locations of the schemes are shown in Figure 1-2 below.

1.2.6 This particular GIR is focussed on Package B, and scheme sections **M6 Junction 40 to Kemplay Bank Roundabout and Penrith to Temple Sowerby** . To align this GIR with the corresponding Factual Reports on Ground Investigation, it should be noted that the relevant ground investigation was undertaken as a package, covering all of these scheme sections. The report is entitled **A66 Northern Trans-Pennine, Package B: M6 Junction 40 (Skirsgill Interchange) to Temple Sowerby, Factual Report on Ground Investigation** (4)**.** At the time of the ground investigation the individual scheme sections were assigned acronyms for simplicity:

- M6 Junction 40 (**M6J40**)
- Kemplay Bank Roundabout (**KBR**)
- Penrith to Temple Sowerby (**PTS**)

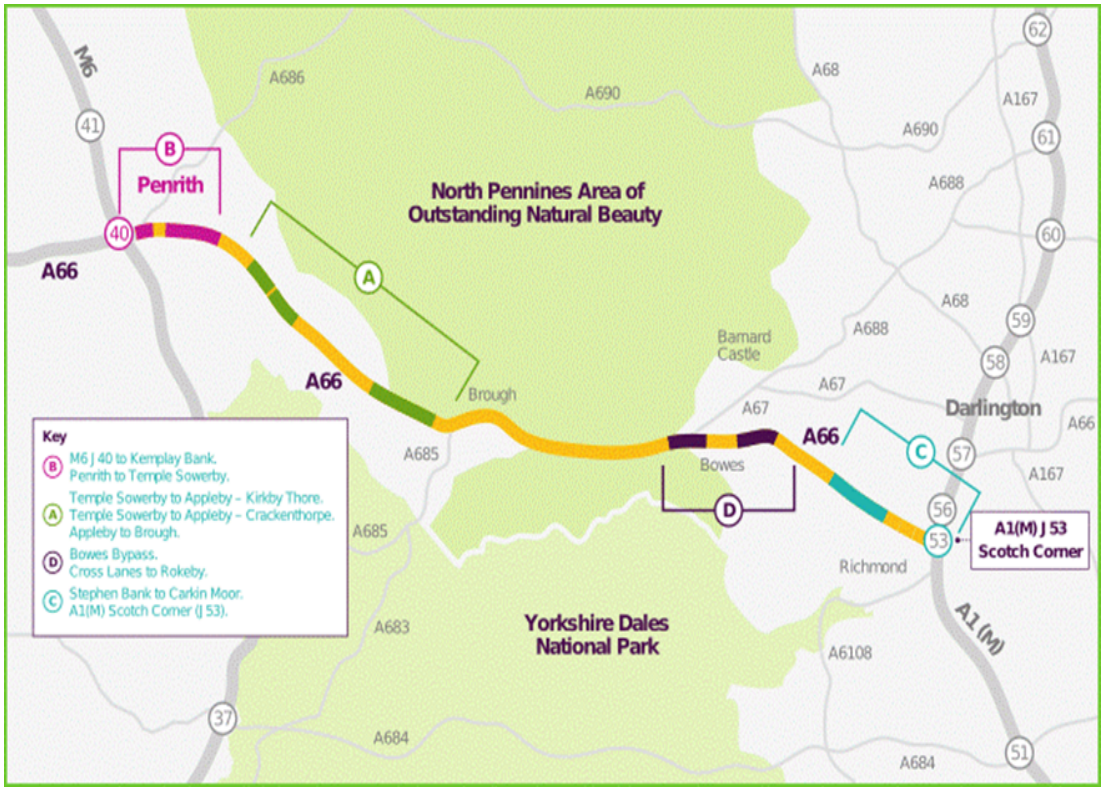

Figure 1-2 : A66 NTP Route Sections

1.2.7 These acronyms provide a system to identify the location of the exploratory holes with a scheme reference included in each label. For example, BH KBR001 for a borehole in the Kemplay Bank Roundabout scheme section.

1.2.8 Earthworks layout drawings are provided in Appendix A; These show the exploratory holes locations, the limits of the earthworks and preliminary general arrangements of the structures for the scheme sections and are listed in Table 1-1.

Table 1-1 : Scheme Plan Alignments and Locations

Drawing Number	Title
M6J40 to Kemplay Bank Roundabout	
HE565627-AMY-HGT-S02-DR-CE-000101	Package B M6J40 – Kemplay Bank Roundabout GIR Drawings Sheet 1 of 4
HE565627-AMY-HGT-S02-DR-CE-000102	Package B M6J40 – Kemplay Bank Roundabout GIR Drawings Sheet 2 of 4
HE565627-AMY-HGT-S02-DR-CE-000103	Package B M6J40 – Kemplay Bank Roundabout GIR Drawings Sheet 3 of 4
HE565627-AMY-HGT-S02-DR-CE-000104	Package B M6J40 – Kemplay Bank Roundabout GIR Drawings Sheet 4 of 4
HE565627-AMY-HGT-S01-DR-CE-000301	Package B M6J40 – Structures Geotechnical Appraisal Drawings Sheet 1 of 2
HE565627-AMY-HGT-S01-DR-CE-000302	Package B M6J40 – Structures Geotechnical Appraisal Drawings Sheet 2 of 2
Penrith to Temple Sowerby	
HE565627-AMY-HGT-S03-DR-CE-000101	Package B Center Parcs GIR Drawings Sheet 1 of 7
HE565627-AMY-HGT-S03-DR-CE-000102	Package B Center Parcs GIR Drawings Sheet 2 of 7
HE565627-AMY-HGT-S03-DR-CE-000103	Package B Center Parcs GIR Drawings Sheet 3 of 7
HE565627-AMY-HGT-S03-DR-CE-000104	Package B Center Parcs GIR Drawings Sheet 4 of 7
HE565627-AMY-HGT-S03-DR-CE-000105	Package B Center Parcs GIR Drawings Sheet 5 of 7
HE565627-AMY-HGT-S03-DR-CE-000107	Package B Center Parcs GIR Drawings Sheet 6 of 7
HE565627-AMY-HGT-S03-DR-CE-000107	Package B Center Parcs GIR Drawings Sheet 7 of 7
HE565627-AMY-HGT-S03-DR-CE-000301	Package B Center Parcs – Structures Geotechnical Appraisal Drawings Sheet 1 of 1

1.2.9 The M6 Junction 40 to Kemplay Bank Roundabout scheme section is the most westerly of the two carriageway improvements within Package B. This scheme will provide a three – lane circulatory carriageway with spiral markings on the current roundabout at Kemplay Bank. The A66 eastern arm from M6 Junction 40 to Kemplay Bank Roundabout will be widened to three lanes in each direction. Widening will be required on the following M6 Junction 40 approach arms to provide additional lanes and a dedicated left turn facility, each controlled under its own signal phase: M6 North, M6 South, A66 East, A66 West, and A592 Ullswater Road.

1.2.10 All existing local and depot accesses will be accommodated and it is proposed to relocate the existing A66 access to Skirsgill Depot by approximately 95m east. This scheme will also include controlled crossings serving the existing shared cycle/footway connection on the western side.

1.2.11 Further to the east, at the Kemplay Bank Roundabout, the scheme will provide a grade separated junction formed by a new underpass beneath the existing roundabout, allowing free-flowing traffic east-west and improving access to Penrith and the A6. This scheme includes two new bridges and new on-slip and off-slip roads with the A6 and A686 allowing users to safely join and leave the A66 in both directions, serving the local road network with links to Penrith, Eamont Bridge and other local settlements.

1.2.12 The existing underpass from Carleton Avenue providing access to the Police and Fire emergency services site to the south of the existing A66, shall be widened to accommodate the revised A66 alignment.

1.2.13 The Penrith to Temple Sowerby scheme section will provide full dualling of the current A66 single carriageway section between Penrith and Temple Sowerby. The scheme will

predominantly involve online widening using the existing carriageway to form one side of the new dual carriageway. The second carriageway will be constructed to the south of the existing carriageway. Access to existing side roads, servicing Center Parcs, St Ninian's Church, Whinfell Holme Wastewater Treatment Works (WwTW), and Whinfell Park shall be improved through new junction layouts and the construction of overbridges and underpasses. New accommodation crossings and side roads shall run parallel to the new A66 carriageway, north and south, providing local access for local and agricultural use.

1.2.14 There is potential that access to Whinfell Holme WwTW will have to be relocated to the east to facilitate widening of the A66 over the existing Shell pipeline and maintain appropriate ground cover to this utility. The requirement for this will be confirmed following further investigations and consultation with the relevant utility managers.

1.2.15 As a result of works to widen the carriageway, which will affect the parking space available to the business, the Llama Karma Kafe hospitality business will close and the property and land will be acquired by National Highways. It is proposed that this area be converted to an amenity parking area with footway access to the Countess Pillar historic monument to the west of this site, to provide an enhancement and accessibility for the public to an important heritage feature along the route. There will be demolition works associated with the upgrading of the existing A66.

1.3 Geotechnical Category

1.3.1 Management of ground risks (geotechnical risks) to the project is undertaken in accordance with Design Manual for Roads and Bridges (DMRB) document CD622 (1). This document incorporates the requirements of Eurocode 7 (EC7). EC7 is a convenient reference for the underlying British Standard Euronorms BS EN 1997:1 (2) and BS EN 1997:2 (5) and their United Kingdom National Annexes (6) and (7).

1.3.2 Design in accordance with EC7 requires assignment of a Geotechnical Category to the elements within the project and defines categories 1 to 3.

1.3.3 At this point, all 'geotechnical structures' (earthworks and structures) are expected to fall into Geotechnical Category 2. EC7 provides the following:

- Geotechnical Category 2 should include conventional types of structure and foundation with no exceptional risk or difficult ground or loading conditions
- Designs for structures in Geotechnical Category 2 should normally include quantitative geotechnical data and analysis to ensure that the fundamental requirements are satisfied.
- Routine procedures for field and laboratory testing and for design and execution may be used for Geotechnical Category 2 designs.

1.3.4 The geotechnical category of each individual geotechnical structure will be considered in the ground summary sections and confirmed in the engineering assessment section of this report. If a feature requires re-categorization to the higher Category 3, then that will be highlighted. For Category 3 elements, further investigation and/or monitoring requirements (during and post construction) will need to be considered.

1.3.5 Geotechnical Certification requirements are set out in CD622 and those applicable to Category 2 are therefore applicable at this stage of development.

1.3.6 Following development permission under planning rules, the National Highways Project Control Framework (PCF) will provide the means to appoint Delivery Integration Partners (DIPs) for construction of the schemes. These DIPs will engage their own designers who will take responsibility for development of the geotechnical design and to present relevant Geotechnical Design Reports to that effect. These designers may re-define the geotechnical category of particular structures.

1.3.7 Where particular complexity leads to classification of Category 3 geotechnical structures, more demanding certification requirements set out in CD622 will apply to the design process.

1.4 Other Relevant Information

1.4.1 The Preliminary Sources Study Report (PSSR) was developed on behalf of National highways (3) and this is fully considered in section 2, which follows.

1.5 Structure of Report

1.5.1 This particular report presents the GIR for the schemes described in section 1.2 above.

1.5.2 The main output of the GIR is the ground summary and this will be done for the whole route section between M6 Junction 40 and Temple Sowerby, followed by geo-environmental modelling for each scheme section. A geotechnical engineering appraisal of each section shall follow. Consequently, the report structure is as follows:

- M6 Junction 40 to Temple Sowerby – Ground Summary
- M6 Junction 40 – Geo-environmental Model
- Kemplay Bank Roundabout – Geo-Environmental Model
- Penrith to Temple Sowerby – Geo-Environmental Model
- Engineering Assessment – M6J40 to Kemplay Bank Roundabout
- Engineering Assessment – Penrith to Temple Sowerby.

1.6 Report Limitations

1.6.1 The content of this Ground Investigation Report is compiled on the basis of the information made available at the time of writing, subject to limitations presented below.

1.6.2 The ground investigation was developed around Design Freeze D, mirrored in the ground investigation scoping report. During the course of the ground investigation fieldwork, minor road alignment changes were partially accommodated up to Design Freeze E, through revision of exploratory hole locations where feasible. However, not all alignment changes were able to be accommodated during this period and is reflected in the factual report presented by Structural Soils Ltd. Variations in alignment, structure locations which are not reflected within this report will be subsequently investigated at the Phase 2 (detailed) ground investigation stage. Design Freeze D and E shall be referred to within this report as the current scheme(s).

1.6.3 During the 2021 GI (8) access to some areas of the scheme was not possible, particularly the proposed earthworks in the vicinity of M6 Junction 40 A66 east and the western and eastern approaches to Kemplay Bank Roundabout. Permission to set up adequate traffic management to enable the safe execution of boreholes and other means of investigation could not always be timeously agreed with the operating authority.

1.6.4 Access to the toe of the embankment at Skirsgill Depot was not considered safe nor feasible. The boundary fencing and extensive laydown area within the depot prevented access to investigate the slope toe and the slope itself. The embankment slope in this area is heavily vegetated with shrubs and mature trees. Access to the slope crest verge areas was possible.

1.6.5 Deemed sample unsuitability limited the amount and variety of laboratory testing requested at the time of investigation; this particular limitation is discussed further within section 3.9.

1.6.6 Review of future ground investigation requirements shall be attended to within the phase of ground investigation scoping.

2 Existing Information

2.1 Sources of Information

2.1.1 Existing information was reviewed for the development of the Preliminary Sources Study Report (PSSR). The information is not repeated here, but reference will be made to any relevant content as required.

2.1.2 The PSSR provided general information on the project corridor in terms of topography, hydrology, hydrogeology and geology. Relevant stakeholders were engaged as part of the planning processes. Together with the physical constraints identified by geology and environmental obligations, stakeholder input has shaped the selection of the route options currently under consideration.

2.1.3 The PSSR considered a number of route options at time of writing and presented those in Table 1-1 of the PSSR. At that time, the route options were grouped by “Section”. The sections in the PSSR that are relevant to the current GIR are sections, 1, 2, and 4. Of note, Section 1 is an existing dual carriageway section and was not considered further in the PSSR. The remaining two sections are:

- Section 2 – Kemplay Bank Junction
- Section 4 – Penrith to Temple Sowerby

2.1.4 These route options covered by the PSSR have been subsequently developed. Consequently, references in this GIR will now use the scheme names in section 1.5 above.

2.1.5 PSSR Section 2 provided information on routes between M6 Junction 40 and Kemplay Bank, excluding M6 Junction 40 Penrith, specifically.

2.1.6 PSSR Section 4 provided information on route Penrith to Temple Sowerby.

2.1.7 Relevant summary information from the PSSR Sections 2 and 4 is provided below for the schemes forming the subjects of this GIR.

2.2 PSSR Section 2: Summary Information – Kemplay Bank Junction

2.2.1 The Section 2 route commences to the east of the M6 Junction 40 interchange south of Penrith, terminating some 1.2km east of the current Kemplay Bank Junction. The route alignments cover three options (2a, 2b, and 2c). A detailed appraisal of each option is presented within section 7.3 of Appendix A within the PSSR. Of these options, Option 2c provides for the construction of a new grade separated junction incorporating a new underpass on which the A66 shall follow, with associated slip roads.

2.2.2 The route options generally traverse a rural landscape, predominantly used for agricultural purposes, and the River Eamont.

2.2.3 The geology underlying the route options are indicated within Section 4.3 of the PSSR to comprise made ground (artificial or man-made ground), natural alluvium, glaciofluvial deposits and glacial till, overlying bedrock of sedimentary rock types including sandstone, siltstone, and mudstone pertaining to the Stainmore Formation and the Penrith Sandstone Formation. Glacial meltwater channels and drumlin features were identified to potentially impact the route options.

2.2.4 The PSSR details aspects of historical human activity and land use that can influence highway development, summarised in the PSSR as follows:

- Agricultural land, fields, forest
- A66 highway with associated roundabouts and junctions
- Building structures
- Penrith waterworks
- Lancashire and Carlisle Railway
- Well
- Swimming pool
- Gravel pit
- Transport depot
- Fuel station
- Ambulance and fire station
- Substations
- Penrith Hospital
- Laundry
- Council Depot
- Tip
- Penrith industrial estate
- Civil Engineering Laboratory

2.2.5 Further constraints to development arise from the Special Area for Conservation (SAC) and Sites of Special Scientific Interest (SSSI) associated with the River Eden and its tributaries, including River Eamont. In addition, 5 scheduled monuments and 12 listed buildings are located within 500m of the route options.

2.2.6 Section 4.10 of the PSSR summarised the presence of underground and overhead services to include:

- Telecoms
- Electricity
- Gas
- Waste and potable water

2.2.7 The geotechnical risk register presented in section 8 includes the relevant risks from the register which was developed in the PSSR. Where the PSSR identified ground risks associated with geological processes and materials, these have been updated taking account of the findings of the ground investigation described in section 3 which follows.

2.3 PSSR Section 4: Summary Information – Penrith to Temple Sowerby

2.3.1 Section 4 route options (4a and 4b) cross the River Eamont in an easterly direction towards Whinfell, located at the western end of the Temple Sowerby Bypass.

2.3.2 The options are located within a predominantly agricultural landscape comprising fields and localised woodland areas. Both options are within the current A66 route corridor.

2.3.3 The geology underlying the route options is presented within the PSSR, summarised as Made Ground associated with historical site development overlying natural occurrences of alluvium, glaciofluvial horizons and glacial till deposits. The deposits overlie solid geology of the Penrith Sandstone Formation. Glacial linear features are indicated in the form of drumlins and glacial meltwater channels.

2.3.4 The PSSR details 2 unnamed watercourses that will require spanning; it is likely that compressible ground will be present in their vicinity.

2.3.5 Historical land use pertinent to the site is summarised within section 4.8 of the PSSR to include:

- Agricultural land and fields
- Bridge structures spanning water courses
- Roman remains including a road and burial sites
- Water issues beneath historical roman road, suggesting shallow groundwater
- Sloping masonry along the line of the A66, indicating potential ground stability problems.
- No evidence of historical mining or surface extraction, within or in vicinity of the site

2.3.6 Buried and overhead utilities are summarised by the PSSR to include:

- Telecoms both overhead and buried
- Electricity both overhead and buried
- Gas
- Waste and potable water
- Fuel pipeline, ethylene, operated by Shell

2.3.7 A total of 6 designated sites are identified within the PSSR comprising, 2 No. Special Areas of Conservation (SAC), 3 No. Sites of Special Scientific Interest (SSSI) and 1 No. Local Nature

Reserve (LNR). These are associated with the River Eden, River Eamont, Udford Low Moss and Cowraik Quarry.

2.3.8 The geotechnical risk register presented in section 8 includes the relevant risks from the register which was developed in the PSSR. Where the PSSR identified ground risks associated with geological processes and materials, these have been updated taking account of the findings of the ground investigation described in section 3 which follows.

2.4 PSSR – Guidance for Ground Investigation Scoping

2.4.1 For the schemes identified in section 1.5, the PSSR provided summary information on the geology likely to be encountered. This summary was based on review of information available at that time from the British Geological Survey (BGS) and historical maps. The available information was limited and the PSSR summarised the expected soil horizons and bedrock stratigraphy in terms of superficial deposits (soils) and solid (bedrock).

2.4.2 This information was used to develop the Ground Investigation Scoping Report (9), informing design of the 2021 Ground Investigation.

2.4.3 The Factual Report on the Ground Investigation (8) provides the main source of information for development of the various scheme ground summaries in this GIR.

2.5 Consultation with Statutory Bodies and Agencies

2.5.1 The preliminary design is being undertaken in parallel with production of this GIR. Consultation with relevant stakeholders and agencies has been a sustained part of that process. Records of these consultations are available separately within the submissions for statutory consultation phase and are not reported here.

3 Field and Laboratory Studies

3.1 Geomorphological/Geological Mapping and Topographic Survey

3.1.1 The GISR identified the main sources of existing information, primarily derived from the work undertaken in production of the PSSR. There were no additional geomorphological or geological mapping exercises prior to the intrusive ground investigation in 2021.

3.1.2 Topographic surveys of the route options were underway in 2021, but incomplete at the time of writing of this report. For the ground investigation undertaken in 2021, the as-drilled and as-dug positions of the exploratory holes were captured, with National Grid Eastings and Northings to 0.1m accuracy and elevation above Ordnance Datum to 0.01m accuracy.

3.2 Ground Investigations

3.2.1 For the schemes identified in section 1.5, the PSSR provided summary information on the geology likely to be encountered. This summary was based on review of available information from the British Geological Survey (BGS) and historical maps. The information was limited and the PSSR summarised the expected stratigraphy in terms of superficial deposits (soils) and solid geology (bedrock). This information was reviewed in preparation of the GISR.

3.2.2 The GISR was developed to inform design of the 2021 Ground Investigation. For the schemes identified in section 1.5 (referred to as ground investigation “Package B”), a specification was developed and a Contract procured for its execution. For Package B, the contract was awarded to Structural Soils Limited (SSL).

3.2.3 The purpose of the investigation was fully described in the contract and in particular the following requirements were defined:

- Determination of the geological (stratum) sequence.
- Assessment of ground water levels (hydrogeology) across the whole development area.
- In situ testing to assess permeability of superficial (soil) and solid (bedrock) geology.
- In situ testing to assess ground strength and stiffness, with particular reference to road pavement design.
- Provision of soil and rock samples to enable geotechnical and geo-environmental parameters and properties to be derived for design.
- Screening of soil and water to assess geo-environmental constraints and design of ground contamination mitigation.

3.2.4 To ensure compliance with statutory requirements, this investigation was undertaken with an archaeological watching brief. A separate archaeological report was produced and is available as Appendix G of the 2021 GI Factual Report (8).

3.2.5 The investigation provides a suitable level of ground information to develop the scheme ground summary in this GIR and inform the preliminary design required at Project Control Framework (PCF) Stage 3 (Project Control Framework, National Highways formerly Highways England, 2018). The objective of this stage of investigation is to provide enough information, commensurate with preliminary design, to identify levels of ground risk that can then be suitably priced in the design and build procurement stage. Future detailed design in that stage will require more specific targeted ground investigation, particularly when foundation locations for structures are finally fixed.

3.2.6 Subsequent to completion of the fieldwork for the investigation, stakeholder consultations led to review of sections of the route options. As a result, in some areas there is a need for further investigation at a later stage, to ensure detailed design complies with the recommendations of Eurocode 7 (2) (5).

3.3 Description of the Fieldwork

3.3.1 The ground investigation for Package B was undertaken by SSL between 15th February 2021 and 28th April 2021.

As noted earlier in section 1.2, two schemes were covered by the GI for Package B and acronyms were adopted for the scheme names, namely M6J40 (M6 Junction 40), KBR (Kemplay Bank Roundabout) and PTS (Penrith to Temple Sowerby). These acronyms were then used as a suitable prefix to identify exploratory holes for each section. Exploratory holes were drilled boreholes (BH or SD), window sampling boreholes (WS) or trial pits excavated by hand (HP) or machine (TP). Exploratory holes were initially numbered from west to east commencing with 001 for each of the schemes. Consequently, a logical exploratory hole numbering system was devised to use these three elements, for example “BH M6J40 001” and “TP M6J40 001” to identify the initial borehole and trial pit in the M6 Junction 40 scheme.

3.3.2 Exploratory hole types and locations were chosen to provide sufficient information for preliminary design, commensurate with PCF Stage 3. At this stage, the ground investigation is required to enable assessment of the materials present, classification for use in earthworks and determination of parameters for preliminary design. At a future stage, detailed ground investigation will be required to finalise design parameters at structures. Further testing of proposed treatment methods for earthworks materials (for example, lime stabilisation) will also be required for detailed design.

3.3.3 Site condition surveys were undertaken prior to exploratory hole formation between 1st and 12th February 2021. Further surveys were undertaken following the works to confirm acceptable reinstatement of damage to ground and access routes. These were done between 29th April and 18th May 2021, together with a topographic survey of the as-drilled/as-dug locations of the exploratory holes.

3.3.4 Table 3-1 provides a summary of the fieldwork undertaken for Package B.

Table 3-1 : Summary of Fieldwork, Package B

Exploratory Hole Type	Number	Maximum Depth (m)	Comments
Cable percussion boreholes	24	10.05	
Cable percussion boreholes extended by rotary coring	10	15.50	
Hand excavated pits (originally intended as cable percussion boreholes)	9	0.90	Originally intended as Cable Percussion boreholes. Future investigation to be considered as part of second phase of ground investigation.
Sonic drilled boreholes	4	25.73	Difficult ground conditions, replaced Cable Percussion methodology.
Machine excavated trial pits	33	3.80	
Hand excavated trial pits	11	1.50	
Window sample boreholes	2	4.80	

3.3.5 Formation of exploratory holes listed in Table 3-1 was accomplished by a variety of plant and equipment and full details are given on individual exploratory hole records.

3.3.6 The majority of exploratory holes were completed at their target locations. Where land access routes, ground condition or traffic management presented particular challenges, exploratory holes were moved locally to appropriate locations or cancelled.

3.3.7 In addition to the work already described, ongoing monitoring and environmental sampling continued beyond the main contract site operations period. From wells installed in boreholes during the site operations, gas and groundwater levels were recorded on four separate visits, undertaken between 26th May 2021 and 23rd June 2021. Water samples were also taken from five locations during the second visit.

3.4 Results of In Situ Tests

3.4.1 In Situ testing formed a part of the investigation and is summarised in Table 3-2. Test results are reported in Appendix C of the 2021 Ground Investigation (2021 GI) (8).

Table 3-2 : Summary of In Situ Testing, Package B (M6J40 to Temple Sowerby)

Type of In Situ Test	Quantity	Comments
Standard Penetration Tests (SPT)	267	Carried out in all boreholes with results presented on exploratory hole logs.
Hand Vane (HV)	138	Carried out in trial pit excavations and included within the exploratory hole log. Peak values only recorded.
Plate Bearing Tests	24	Completed within selected trial pit excavations.
Lightweight Deflectometer	9	Completed within selected trial pit excavations at 0.50m depth.
Soakaway (infiltration) Testing	3	Undertaken within select trial pit excavations at SuDs locations.

Type of In Situ Test	Quantity	Comments
Photo – Ionisation Detector (PID) measurement of volatile hydrocarbons	11	Measurement on selected soil samples.

3.4.1 Standard Penetration Tests (SPTs) were undertaken in all boreholes at vertical intervals of 1m to 2m. These tests provided information on the relative density (state of compaction) of granular materials encountered during drilling. Each test provided a value, known as N-value, based on the number of blows needed to penetrate a standard depth in a given stratum, using a standard mass hammer. Loose to very dense strata were identified throughout the site, based on correlation between N-value and relative density set out in BS 5930 (10). These are discussed later with regard to determination of ground summaries and material parameters.

3.4.2 SPTs are also used in a number of correlations to determine material stiffness and strength in both fine-grained and coarse-grained soils. These are discussed later with regard to determination of ground summaries and material parameters.

3.4.3 Hand shear vane (HSV) tests were used during excavation of trial pits, to indicate both the peak and the residual undrained shear strength of fine soils. Taken together with relevant laboratory testing, these results are used to determine soil strength and stiffness, discussed later in this report.

3.4.4 Plate Bearing Tests (PLT) were undertaken in accordance with BS1377 (11). This test was undertaken, generally at 0.5m depth in machine excavated trial pits. The purpose of the test was to evaluate a surface stiffness modulus in accordance with original guidance in the Design Manual for Roads and Bridges (DMRB), IAN 73/06 (12). Although this guidance is withdrawn and superseded by later DMRB guidance (13), the calculation of pavement stiffness in IAN 73/06 is still valid. IAN 73/06 provides a method for calculation of CBR (California Bearing Ratio) using the plate bearing test in its paragraphs 7.13 to 7.15 inclusive. Although this method has known limitations, the results can be compared with results from dynamic tests such as the Falling Weight Deflectometer (FWD) or Light Weight Deflectometer (LWD) . The latter were also undertaken as part of the investigation and are described below.

3.4.5 Light Weight Deflectometer (LWD) tests were undertaken in selected trial pits in the M6 Junction 40 to Kemplay Bank Roundabout scheme. Testing was conducted using the Dynatest 3032 LWD in accordance with ASTM E2583-07 (14).This provided values for subgrade surface stiffness modulus which are the basis for pavement foundation design. Results are considered in the relevant ground summaries later in this report.

3.4.6 Infiltration testing was undertaken in selected trial pit excavations. Testing was undertaken in accordance with the method set out in BRE Digest 365 (15). The purpose of the testing was to determine the in situ soil permeability. This information would provide the drainage designer with infiltration rates to guide the design of drainage systems for the schemes. In general,

these tests indicated very low permeabilities in the soil deposits within the first 2m below existing ground level. The impact of these is discussed with regard to the ground summaries later in this report.

3.4.7 Where hydrocarbon odours were noted, PID (Photo-ionisation Detector) was used to determine the concentration in the soil. This information is considered in the geo-environmental review of the ground investigation and described in the relevant section in this report.

3.5 Drainage Studies

3.5.1 The 2021 GI did not include any significant drainage studies, although some infiltration testing was done to assess the soakaway potential of the near surface soil deposits. In due course, this information will be available to the drainage designer to inform potential sites for detention ponds or 'SuDs ponds' (SuDs – Sustainable Drainage Systems). Infiltration rates and existing groundwater levels have been determined in the 2021 GI and these will be available to future drainage designers.

3.5.2 For preliminary geotechnical design, the 2021 GI has indicated the presence of fine soils in some areas. These are discussed further in the later ground summaries, but such materials are known to be susceptible to groundwater and surface water actions. As a result, it is expected that where existing topography falls towards cuttings, all cutting slopes will require protection by crest drainage. The extent of the drain runs will be driven by the ground topography and required where the ground falls towards the crest of the cutting. Toe of cutting drainage will be provided in accordance with the Specification for Highway Works Clause 500.

3.6 Geophysical Surveys

3.6.1 Geophysical surveys were not undertaken as part of the 2021 GI for Package B.

3.7 Test Pile Results

3.7.1 Piling design will be required where structure foundations cannot adopt a shallow foundation. These aspects will be determined at detailed design stage. At that stage, it is recommended that the requirements of Eurocodes are fully applied and that adequate pile testing is mandated by the design. It is recommended that fully instrumented preliminary piles are constructed and tested at each structure location. These tests are likely to be static, sustained load tests. Further dynamic load tests are recommended to supplement the static testing on an appropriate sample of piles, at the frequency recommended in the Eurocodes.

3.7.2 Construction and testing of preliminary piles for piling solutions is expensive and is often an area where design and build organisations look to minimise cost. Industry experience has shown this to be ill-advised and a suitable mechanism is vital to ensure that suitable testing

is in place for any piling proposals. This can typically be accommodated by specific inclusion in the client's requirements.

3.8 Other Fieldwork

3.8.1 The Factual Report on the Ground Investigation was produced in July 2021. To ensure compliance with statutory requirements, this investigation was undertaken with an archaeological watching brief. A separate archaeological report was produced and this is included in Appendix G of the Factual Report on the Ground Investigation.

3.9 Laboratory Investigation

3.9.1 The 2021 GI included a programme of laboratory testing. This was designed and scheduled by Amey to collect information on the soils, bedrock and groundwater.

The test results reported by SSL are summarised in Table 3-3 below, and presented within the SSL Factual Report following the abbreviated scheme nomenclature:

- M6 Junction 40 (**M6J40**)
- Kemplay Bank Roundabout (**KBR**)
- Penrith to Temple Sowerby (**PTS**)

Table 3-3 : Summary of Completed Geotechnical Laboratory Testing, Package B (M6J40 to Temple Sowerby)

Laboratory Test	M6J40	KBR	PTS
Water Content	51	61	171
Atterberg Limits	34	40	60
Particle Size Distribution	21	64	125
Sedimentation	18	51	104
Compaction 2.5kg		18	24
Moisture Condition Value (single point)	1	23	27
Moisture Condition Value (calibration line)	1	13	9
California Bearing Ratio	8	20	14
Oedometer Compressibility	0	0	2
Unconsolidated Quick Undrained Triaxial Single Stage	9	5	7
Unconsolidated Quick Undrained Triaxial Multistage	2	5	3
Small Shear Box	3	12	29
Large shear Box	0	4	0

Laboratory Test	M6J40	KBR	PTS
Consolidated Undrained Triaxial with Porewater Pressure Measurement	7	4	8
pH value	7	23	24
Acid soluble Sulfate	5	9	1
Aqueous Extract Sulfate	2	14	23
Organic Matter	0	0	2
Point Load Strength (axial)	0	0	33
Point Load Strength (diametral)	0	0	18
Point Load Strength (lump)	0	0	5

3.9.2 Testing was scheduled in order to classify the soils and rock, typically comprising particle size distribution (PSD), plasticity limits (Atterberg Limits) and in the case of rock samples, unconfined compressive strength (UCS) to assess rock grade.

3.9.3 In addition to basic classification tests, a range of tests were undertaken to assess the suitability of the various soils and rocks for re-use as engineering fills. These included Dry Density and Moisture Content Relationships (Compaction), Moisture Condition Value (MCV) and re-moulded undrained shear strength, the latter from laboratory triaxial tests to supplement the hand shear vane tests undertaken during site operations.

3.9.4 For general stability assessments the short and long-term shear strength of the various soils was assessed. This was done using small and large shearbox tests for granular materials and triaxial testing in the case of the fine soils. For the latter, undrained triaxial tests were undertaken to determine short term shear strength. For the long term (effective) strength in the fine soils, consolidated undrained tests with pore pressure measurements were undertaken.

3.9.5 To understand compressibility and settlement characteristics of the soils, laboratory oedometer tests were undertaken on selected samples.

3.9.6 Surface stiffness characteristics were assessed for soils at expected road pavement foundation levels. This was done using the California Bearing Ratio (CBR) test in the laboratory, supplementing the in situ testing undertaken during the site operations – Plate Bearing Test (PBT) and Light Weight Deflectometer (LWD).

3.9.7 During the laboratory testing period, it is common for Abortive Test Notices (ATNs) to be issued. ATNs are raised when one of more issues mean that the requested test cannot be undertaken in accordance with all aspects of the relevant test standard. For Package B of the 2021 GI, 68 laboratory test schedules were issued for soil testing and 7 for rock core tests.

Each of these requested a range of tests for one or more exploratory holes. In response, 142 ATNs were issued by the testing laboratory.

3.9.8 ATNs were predominantly raised where the mass of individual soil samples was less than the minimum required by standard for a fully representative PSD test. Given the nature of the materials, the presence of individual large gravel and cobble particles in a bulk soil sample could easily result in the requirement for a large sample mass in order to be fully representative of the stratum. This large sample mass would then be systematically split until a sub-sample was produced, with the full range of particle sizes in proportions expected in the stratum in the field. Initially, where this criterion was not met, the laboratory raised an ATN and Amey accepted the reason and dismissed the test. However, as the investigation continued, it became evident that this issue was present in many samples. Given the glacial and fluvio-glacial nature of the materials in this area, this issue was unavoidable and a decision was made to proceed with 'Non-standard' tests where individual large particles indicated insufficient sample mass. It was deemed reasonable to do this, given the behaviour of mixed soils of these types is known to be controlled by the overall matrix, which is generally the fine fractions (silt and clay). In most cases, excluding the few very large particles resulted in a sample mass which was representative of the gravel, sand, silt and clay matrix which dictates behaviour when working with the materials in the field at scale.

3.9.9 Some ATNs were raised with respect to requests for compaction tests, citing inadequate sample mass. For this type of test, upwards of 5 sub-samples are compacted in a mould at a range of water contents and the compacted dry density is determined. The minimum sample mass for 5 sub-samples was not available on occasion. In such cases re-use of a single sample is permitted by the standard. This does however require the soil particles to be 'non-crushable' when undergoing compaction in the mould. Some ATNs were therefore raised because of the issues noted and again Amey initially accepted the reason and dismissed the tests. As the investigation continued, this issue persisted and a decision was made to undertake non-standard tests where the laboratory flagged 'crushable' material. In essence, the 'crushable' material was agglomerated sand forming gravel sized particles, typical in glacial deposits. A decision was therefore made to proceed with 'non-standard' compaction tests where 'crushable' material was cited, on the basis that the behaviour of such agglomerated particles would not unduly influence the outcome of the tests.

3.9.10 ATNs were raised where PSDs were requested using both sieve analysis and sedimentation. The latter is required to determine particle size from silt size down to clay size. For glacial materials present, this can be a significant proportion of the overall material matrix. Where materials were described on preliminary logs as containing silt and/or clay, a sedimentation test was generally scheduled. On occasions, the material passing the silt size in the sieve analysis was less than 10% and the relevant standard recommends that the sedimentation is not required in these cases. For these ATNs Amey dismissed the sedimentation test request.

3.9.11 The MCV test is a compaction assessment test and is suitable for a wide range of soils with a minimum fine grained portion. The test is not recommended for materials which are predominantly coarse and the test defines a grading zone where this is the case. A number of ATNs were raised for this reason and dismissed accordingly by Amey.

3.9.12 For compressibility assessment, one-dimensional oedometer consolidation tests were scheduled on fine soils. This test requires a relatively thin sample, so the presence of gravel sized particles generally prevents a successful test. A number of samples presented significant gravel content and ATNs were raised. Where Amey could not find a suitable alternative sample, the tests were dismissed.

3.9.13 Triaxial testing was scheduled on tube sample extracted from fine grained soils, on the basis of descriptions on preliminary logs. On some occasions, on extrusion of the samples in the laboratory, the materials were found to have high coarse material content which rendered them unacceptable. Again alternative samples were sought where possible and the scheduled tests were dismissed. The difficulty in obtaining tube samples was due to the granular nature of the glacial tills, so a number of shearbox tests were scheduled where granular tills were prevalent. In general the shearbox tests were undertaken with few ATNs raised and those that were raised were due to the presence of coarse gravels. This test is not suitable for very coarse soils.

3.9.14 At time of writing National Highways has approved preparations for a further phase of ground investigation to inform the detailed design. As part of this, a large scale material re-use assessment is planned, comprising trial pits and bulk sampling at a scale that will resolve the sample mass issues noted above for some of the testing. The main objective is to determine the acceptability of the as-dug material for re-use as fill. As-dug materials from glacial and fluvio-glacial tills can present difficulties in handling, transportation, placing and compaction in earthworks fill areas. The Specification for Highway Works (16) refers to acceptable and unacceptable materials. For the planned material re-use assessment, the glacial tills and fluvioglacial deposits can have high water content which makes compaction difficult and this is a primary reason for classification as unacceptable. The objective of the testing is to determine which cuttings and borrow areas can provide acceptable fills for the embankment areas and how much is acceptable ‘as-dug’ and how much needs to be treated to render it acceptable. Typically this is done by addition of lime or both lime and cement, to drive off excessive water content and to take advantage of reactions with the lime and/or cement to form cementitious compounds which stabilise the soils. A programme of sampling, preparation and testing at various concentrations of lime and/or cement will be designed to determine the re-use capability. This is a well-known approach and given the environmental constraints and the need for sustainable construction, will be a significant study in the forthcoming second phase ground investigation.

3.9.15 This further phase of investigation will allow inclusion of alternative techniques such as continuous soil coring to try to obtain suitable samples for undrained and drained shear strength determination in the cohesive materials at depth in cuttings. Further laboratory CBR testing at depth will also be enabled by such sampling, in areas where tube sample recovery was difficult in the 2021 GI.

3.9.16 ATNs were raised in relation to testing scheduled on rock cores. Where UCS tests were scheduled, the laboratory examination often exposed fractures or features which made the samples unsuitable for this test. Amey generally scheduled Point Load Index Tests (PLT) on the original sample as an alternative.

3.9.17 Where PLTs were scheduled, ATNs were raised where the sample was generally too weak for the test, confirming the experience of the field drilling and the field geologists' logging as weak or very weak rock. Amey sought alternatives for test where possible, but significant lengths of the recovered core had frequent bedding fractures and were also unsuitable. For the proposed further phase there is opportunity to explore the possibility of specific drilling approaches which may help recover cores in weak rocks for a more comprehensive assessment of UCS in rock, particularly at structure locations which are subject to design revisions.

3.9.18 Overall the programme of laboratory testing delivered a significant amount of information to inform the preliminary design. Issues in connection with ATNs and unsuitable samples led to some reduction in the available information, as a significant amount of testing could not be completed. Going forward, the second phase of investigation will help to fill remaining information gaps in general and will refine the material suitability assessment.

3.10 Description of Tests

3.10.1 Full details and summaries of test results are presented in the Factual Report on Ground Investigation (8).

3.11 Factual Report and Data

3.11.1 The Factual Report on Ground Investigation is provided separately. The report comprises an electronic PDF (Portable Document Format) and accompanying digital data. The digital data is a text file conforming to the current standard (AGS 4.1) defined by the Association of Geotechnical and Geoenvironmental Specialists (AGS) .

4 M6 Junction 40 to Temple Sowerby – Ground Summary

4.1 Introduction

4.1.1 This section provides an overall summary of the expected materials below the two proposed A66 NTP scheme sections between M6 Junction 40 and Temple Sowerby. These sections are:

- M6 Junction 40 to Kemplay Bank Roundabout
- Penrith to Temple Sowerby

4.1.2 From this overall summary, a geo-environmental model chapter is presented for the M6J40 and KBR sub sections and the PTS section. This is succeeded by engineering assessments for the two sections detailed above, focussed on any local variations in material composition or properties.

4.2 Material Properties - Methodology

4.2.1 To ensure consistency in each of the A66 NTP GIRs, the following methodology has been applied in assessment of material properties in each ground model development. The methodology describes the test methods, analytical methods and relationships from relevant research that have been used as necessary to arrive at representative parameters for preliminary design.

Bulk Density

4.2.2 Bulk density measures the mass of in situ soil in a unit volume. Values for this property have been assigned following review of results from the 2021 GI. Where available, results from any historical ground investigations have also been considered. These bulk density values have then been assessed with guidance from standards (17).

Classification

4.2.3 For soils, classification of each stratum was undertaken using results of tests for Natural Water Content (NWC), Atterberg Limit Tests, Particle Size Distribution (PSD) and Particle Density test results.

4.2.4 For rocks, the classification is limited to type of deposit, rock mass and assessment of compressive strength. The latter uses results of unconfined compressive strength (UCS) testing or correlation with the Point Load Index (PLI).

Shear Strength Fine (Cohesive) Soils – Undrained

4.2.5 Fine soils have a tendency to natural aggregation of particles and historically this property was referred to as cohesion and soils of this type were “cohesive”. Use of the term “cohesive” is now historical and current practice is to refer to “fine” soil.

4.2.6 Fine soils do not drain quickly and on shearing exhibit an apparent “cohesion” or undrained shear strength. Measured values of undrained shear strength (Cu) have been obtained from in situ tests, laboratory hand shear vane measurements and laboratory unconsolidated undrained triaxial tests (UU).

4.2.7 Undrained shear strength has also been assessed from SPT-N value using a relationship developed by Stroud and Butler (18).

4.2.8 Stroud and Butler determined a relationship between plasticity index, SPT-N (N) and shear strength Cu, as follows:

Cu = f1N (kPa)

4.2.9 In the relationship, f1 is a factor which varies with plasticity index (PI) as indicated in the Figure 4-1 below (18):

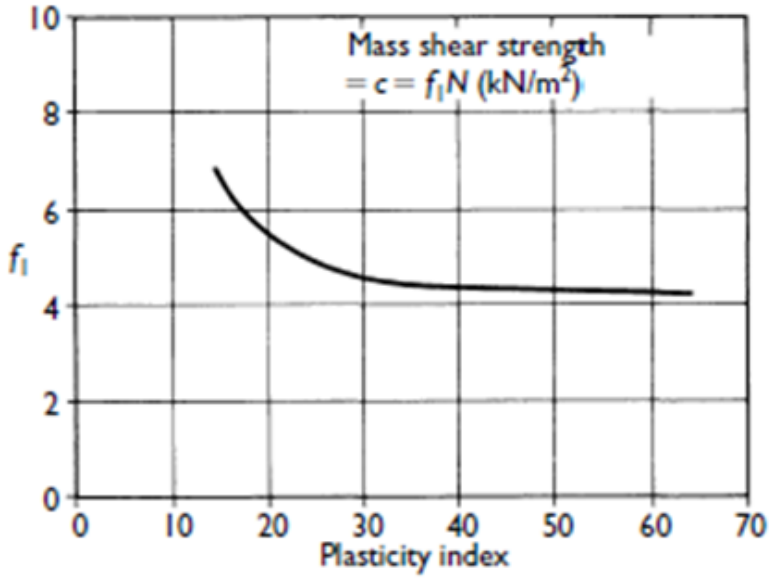

Figure 4-1 : Shear Strength Relationship with SPT - N and Plasticity Index (Stroud and Butler, 1975)

Shear Strength Fine (Cohesive) Soils – Drained

4.2.10 The true frictional behaviour of fine soil relies on full drainage being permitted (using a very small rate of loading). This is impractical and it is usual to use a laboratory method that allows separation of stresses on the soil skeleton (effective stress) and those carried by the soil and pore-water as a whole (total stress). This can be done with triaxial testing where pore-pressure measurements are recorded during testing.

4.2.11 Measured values of the effective angle of shearing resistance and any associated effective cohesion have thus been obtained from consolidated undrained triaxial tests (CU) with pore pressure measurement (19).

4.2.12 The angle of shearing resistance has also been assessed using the following equation from BS8002:2015 (17):

$$\phi'_{cv} = (42° - 12.5 \log10(I_P))$$

where:

ϕ'_{cv} is the soil's constant-volume angle of shearing resistance

I_P is the Plasticity Index (PI), entered as a percentage.

4.2.13 The constant-volume angle of shearing resistance is determined by this expression. It should be noted that the in situ materials will exhibit initial peak frictional resistance that will be higher than this, before falling to the constant-volume value.

4.2.14 In the absence of comprehensive testing data, the constant volume effective cohesion c' has been assumed as zero as per guidance in (19). Values of c' obtained from consolidated undrained triaxial testing (with pore pressure measurement) have however been presented, where recorded.

Shear Strength – Granular Soils

4.2.15 For granular soils, permeability is generally high enough to permit drainage of water and prevent pore-pressure build up during loading. Hence the total stresses applied are equivalent to the effective stresses. Consequently, direct shear tests are generally used to assess effective angle of internal friction in granular soils (20). These tests tend to be limited to sands and medium gravels and use small and large shearbox apparatus respectively. The peak effective angle of friction (φ') is generally reported. Limitations of the test often lead to an effective cohesion (c') being reported, although it is generally ignored in a truly granular material test result.

4.2.16 Known correlations have been used to determine shearing resistance where appropriate. For granular soils, the well-established correlation has been used. This relates in situ standard penetration tests values of SPT-N and internal angle of shearing resistance (21).

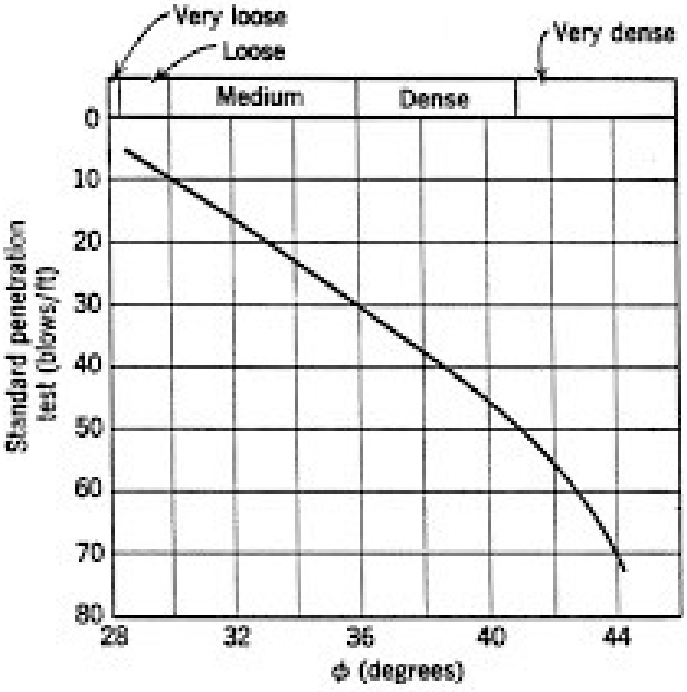

Figure 4-2 : Peck et al, relationship between SPT - N and internal angle of friction

4.2.17 BS8002 (17) also provides methods of estimation of the "critical state" (constant volume) effective angle of shearing resistance. This is determined from assessment of the angularity of the particles and the particle size distribution as follows:

$$\phi'_{critical} = 30° + \phi'_{ang} + \phi'_{PSD}$$

where

ϕ'_{ang} is the contribution from the angularity of the particles

ϕ'_{PSD} is the contribution from the soils' particle size

4.2.18 As noted above for fine soils, this method estimates the critical state angle, not the peak value.

Compaction Characteristics

4.2.19 Compaction characteristics were assessed using standard laboratory tests (22). These comprised dry density/moisture content relationship determination and Moisture Condition Value (MCV).

4.2.20 The Specification for Highway Works (16) places emphasis on achievement of adequate compaction of soils used as fill materials. This can be measured by determining the maximum dry density that can be achieved for soil from a particular area and stratum. The moisture content of the soil at the maximum dry density is the optimum amount. By definition, the relationship covers a range of moisture contents both on the dry side and the wet side of this value. Depending on fill end use and plant, the SHW indicates an acceptable level of

compaction, on an “end-product” or “method-related” basis and the range of moisture contents that are likely to achieve this requirement.

4.2.21 In addition to the standard compaction test described, the MCV test has been developed as a more rapid means of determining material suitability in the field, without the need to wait for moisture content determinations. Prior to MCV, field compliance testing meant that volumes of fill could potentially be placed and compacted outside the acceptable moisture content range, failing the specification and then requiring mitigation and in situ testing processes. The MCV test in the field does not rely on moisture content determination and instead an MCV value range is used to determinate acceptability at the point of deposition in the field.

4.2.22 In order to determine the acceptable MCV value range for different materials on a scheme, suitable MCV calibration and single point MCV determinations are used. For the schemes covered by this GIR, there are mixed soils present and in general the fine fraction of these mixtures determines behaviour of the overall matrix, even though the granular fraction may be upwards of 85% of the mixture. For these soils, the MCV is well-suited and single point and calibration tests have been undertaken. These are discussed in each scheme wide ground summary following.

4.2.23 For granular soils, the MCV test is less relevant as these have a structure which generally allows drainage during compaction. The MCV test procedure identifies PSDs that will not be suitable for the MCV test and the standard compaction test is the recommended route to suitability determination for granular soils.

4.2.24 Both single value MCV (natural moisture content) and MCV-calibration (on a range of moisture contents) were scheduled as part of the 2021 GI.

Stiffness and Compressibility

4.2.25 Material stiffness and compressibility characteristics are directly related.

4.2.26 For fine soils, one-dimensional oedometer consolidation tests (23) have been undertaken as part of the 2021 GI. These allow assessment of expected settlement characteristics (both magnitude and duration) and the corresponding stress/displacement (stiffness) behaviour. These tests allow determination of both the Coefficient of Volume Compressibility (m_v) and Compression Index (C_c). The former parameter varies with stress, so the individual ground summary sections will suggest derived values relevant to the increase in stress. This increase will be brought about by new embankment weight and will increase with increasing embankment height. Use of the Compression Index (C_c) is not stress related, however determination of the best fit straight line section of the plotted test results can occasionally be problematic.

4.2.27 In addition to derivation of m_v using the oedometer test, correlation with SPT-N value is common (24) using the form:

m_v = 1/ (f2 * N) where factor f2 is a function of Plasticity Index (PI)

4.2.28 Later ground summaries will include relevant application of this relationship for comparison with values determined from oedometer testing. This can then be used as a correlation in areas where specific oedometer tests have not been undertaken.

4.2.29 Regarding the stiffness modulus (24), for fine soils this is initially high (undrained condition) as pore pressures develop in response to immediate load. Over time, the pore pressures dissipate and the stiffness in this final drained condition is lower. In the oedometer test, it is possible to evaluate the drained stiffness for a given pressure increment, allowing this to be related to the pressure imposed by new embankment construction. For any value of m_v, the drained stiffness, E' is determined from:

E' = 1 / m_v

4.2.30 It is then common to use a back-analysis to assess the initial undrained stiffness modulus. Typically, an empirical relationship is used, such as the following (24):

E' = 0.6 * E_u and re-arranging,

E_u = E' / 0.6 where E_u is undrained stiffness and E' is drained stiffness.

4.2.31 For coarser soils, oedometer tests are not suitable and more reliance is placed on in situ testing. In the 2021 GI, both SPT and Plate Bearing tests were undertaken, providing a basis of evaluation of ground stiffness (drained elastic modulus by definition in coarse, free-draining soils).

4.2.32 Drained elastic modulus is typically related to SPT-N value using the following expression (24):

E' = 1 * N

4.2.33 Road pavement stiffness is a function of the placed road pavement layers (capping, sub-base and bituminous) and the underlying foundation soil, where all components deform and respond to traffic stresses from wheel loads. For the purposes of this report reference to Interim Advice Note 73/06 (25) provides various methods to assess Subgrade Surface Modulus. It can be determined using in situ tests (Plate Bearing, Light Weight Deflectometer (LWD) and Falling Weight Deflectometer (FWD)) and in the laboratory. The latter determines the California Bearing Ratio (CBR) as described in section 3.9 earlier. The CBR does not provide a direct determination of stiffness but may be correlated to a corresponding Subgrade Surface Modulus for road pavement design. From historical research relationships between lab CBR and Plasticity Index have been developed (26). This is discussed briefly in section 9.6.

Ground Aggressivity

4.2.34 In the 2021 GI, ground chemistry was assessed from the perspective of geotechnical and structural design and in order to evaluate geo-environmental impact. The latter is described in detail in the geo-environmental model section for each scheme later in this report.

4.2.35 For geotechnical and structural considerations, the main objective at the preliminary stage of design was evaluation of the presence of sulfate bearing soils. These have the potential to allow soluble sulfate compounds to come into contact with buried structural materials and are known to create severe problems with buried concrete and steel. BRE Special Digest 1 (SD1): Concrete in Aggressive Ground (27) provides a basis for assessment of the risks to buried concrete in particular, using a suite of tests for water soluble sulfate that can leach from the soil, whether immediately available or present in other sulfur compounds. The SD1 approach allows determination of the Design Sulfate (DS) class and Aggressive Chemical Environment for Concrete (ACEC) classification. The criteria are discussed in the scheme ground summary which follows.

4.2.36 In addition to risks to buried concrete and steel, sulfate bearing soils will constrain soil improvement methods if they are required by later design. These methods, such as lime and/or cement improvement and stabilisation are adversely affected by the presence of soluble sulfate. Excessive consumption of lime and soil swelling are issues that can arise and these are discussed where relevant later in this report.

Rock Testing

4.2.37 Rock strength (UCS) has been assessed based on descriptions given by the geologist on the exploratory hole log. The figure below presents an extract from BS5930 (10) relating UCS and the descriptive strength terms on the logs.

Term for use in field or based on measurement	Definition for field use	Definition on basis of Unconfined Compressive Strength measurements MPa
Extremely weak	Can be indented by thumbnail. Gravel sized lumps crush between finger and thumb.	0.6 – 1.0
Very weak	Crumbles under firm blows with point of geological hammer. Can be peeled by a pocket knife.	1 – 5
Weak	Can be peeled by a pocket knife with difficulty. Shallow indentations made by firm blow with the point of geological hammer.	5 – 25
Medium strong	Cannot be scraped with pocket knife. Can be fractured with a single firm blow of geological hammer.	25 – 50
Strong	Requires more than one blow of geological hammer to fracture.	50 – 100
Very strong	Requires many blows of geological hammer to fracture.	100 – 250
Extremely strong	Can only be chipped with geological hammer.	>250

NOTE Based on BS EN ISO 14689-1:2003 4.2.7, Table 5.

Figure 4-3 : Field descriptive terms for rock strength and relationship with unconfined compressive strength.

4.2.38 Laboratory UCS tests have been undertaken on representative core samples where possible, during the 2021 GI.

4.2.39 Point Load Index tests have also been used to assess rock strength (28), with the standard relationship:

$$\mathbf{UCS = K * I_{s\,(50)}\ MPa}$$

Where $Is_{(50)}$ is the point load index and K is a constant relating to published or site-specific information. The latter is usually only feasible when large numbers of both tests are undertaken in the same strata for a site. For the 2021 GI this was not the case and appropriate values have been adopted as follows:

- Mudstone: K = 10
- Sandstone and limestone: K = 20

4.3 Geology

4.3.1 This section presents the overall assessment of the materials which are present, underlying the scheme route. Based on the 2021 GI, this will provide details of the extents of the various materials affecting the route corridor. This will be done by presentation of a geological longitudinal section ('long section'), showing the variation in existing ground level and the finished levels of the new scheme. The individual exploratory hole logs are also presented on the long section, along with groundwater strikes which were encountered during drilling or excavation.

4.3.2 For each exploratory hole log, the soil descriptions, in situ tests and laboratory tests have been considered together with the anticipated geology. This has enabled definition of a number of geological units which are subsequently used to delineate the materials within the overall ground model. In order to define these units, the geological setting must be known and is described briefly below.

Geological Setting

4.3.3 In broad terms the regional solid geology consists from west to east a younging succession of conformable sedimentary rock strata. The western area of Package B is underlain by Carboniferous aged sedimentary rock. It is likely that these deposits belong to the Stainmore Formation; however, it may be that the eastern extent of the Alston Formation may be present beneath the beginning of the scheme.

4.3.4 The Alston formation comprises a sequence of mudstone, siltstone and sandstone strata, interbedded with significant limestones. These deposits were laid down within swamp, estuarine and deltaic coastal environments, with periodic inundation from the sea. To the east the slightly younger Stainmore Formation is expected to underly the Penrith area, particularly beneath the M6J40 and western approach to Kemplay Bank Roundabout. This formation comprises similar strata of mudstone, siltstone and sandstone, with genesis in similar depositional environments to the Alston Formation. From Kemplay Bank Roundabout east to scheme termination at Temple Sowerby the bedrock geology is indicated to comprise Permian aged sandstone strata of the Penrith Sandstone Formation. These sandstone deposits were formed within an aeolian (wind blown) environment to form lenses, beds and dune type structures.

4.3.5 Overlying the sedimentary sequences detailed in section 4.3.3, the superficial deposits (soils) in this scheme are predominantly of glacial origin, formed by the action of the ice sheets during the Ice Ages of the Pleistocene and Devensian periods in history. These soils were formed at the base of the ice sheet (lodgement till) or in meltwaters from the ice sheet boundaries (fluvio-glacial till). These soils generally lie beneath a thickness of topsoil. Locally the route crosses or is located close to watercourses where fluvial deposits of alluvium are present. These deposits were formed through deposition of particles from the water column.

4.3.6 The lodgement tills are generally composed of particle sizes ranging from cobbles and boulders at the coarse end to silts and clays at the fine end of the mixture. These materials are often referred to as ‘boulder clay’ and are generally over-consolidated (OC), meaning that the earlier overburden pressure of the ice sheet has now been removed. OC tills therefore can tolerate stresses up to their maximum past overburden pressure with limited compression and settlement, when compared with soils that are normally-consolidated (NC). NC soils by definition have internal soil pressures directly related to the current soil overburden at any particular depth.

4.3.7 The fines (silt and clay) element of the soil generally dictates the overall behaviour of the lodgement tills and typically fines content in excess of 10% to 15% leads to classification of the primary soil in the mixture as 'fine soil' of SILT or CLAY according to BS5930 (10) Traditionally, these fine soils were described as 'cohesive', to indicate their tendency to stick together and retain shape on re-moulding. Further tests are described later, which determine whether the fine soil is classified as SILT or CLAY.

4.3.8 The fluvio-glacial tills (FG) by comparison tend to be mainly granular materials, comprising sands, gravels, cobbles and boulders. The fine material tends to have been washed out in the meltwater, although up to 10% fine material may still be present. However, this proportion of fines does not dominate the matrix behaviour of the material, so the FG materials are 'coarse soil' according to BS5930.

4.3.9 Soils of fluvial origin are typically sorted and bedded, with grain size varying from clay to boulder, dependent on water flow velocity and depositional environment. These deposits vary laterally and vertically. Within this scheme these deposits are generally referred to as alluvium of floodplain origin, tending to be fine grained and can contain coarser fractions including sand and gravel.

4.3.10 In addition to the natural superficial soil deposits, materials from anthropogenic origin (man-made) are present. These are described as 'Made Ground' and are generally re-worked local tills or, where forming part of a road, track or footpath, these are often sourced from quarried hard rock. These materials are generally found between ground level and a few metres depth. Where used as fills for construction of road embankments in the past, the Made Ground can be many metres in thickness.

4.3.11 Below the superficial deposits, bedrock is present and extensive in depth. The main rock formations in this scheme are sedimentary rocks. From west to east, these are mudstone, siltstone and sandstone (Alston Formation and the Stainmore Formation) and sandstone (Penrith Sandstone Formation). Of note, only the Penrith Formation was encountered during the 2021 GI (8). The Alston and Stainmore Formations were not confirmed during this phase of investigation.

Scheme Elements

4.3.12 The plan and long sections for the M6J40 to Temple Sowerby scheme are shown in the drawings listed in Table 4-2 above and provided in Appendix A. These show the locations of the various elements (embankments, cuttings and structures) comprising the two sections.

4.3.13 At this stage, the focus of the ground summary is on the route centre line, to determine the stratigraphy and to assign appropriate geological units. This will identify the materials present beneath the scheme extents, their expected thicknesses and the properties associated with them. The derivation of these geological units is given below.

4.3.14 The Engineering Assessment chapter in this report then discusses the geological units underlying mainline earthworks embankments and cuttings for each of the individual schemes. The assessment considers the suitability of the existing ground in terms of material classification and re-use. In particular, where excavated materials are deemed unacceptable in their 'as-dug' state, potential treatments to render them acceptable will be suggested. Earthworks for side roads and new junctions are also reviewed as necessary, given these may be some distance from the centreline and local variations in ground will need to be considered.

4.3.15 The Engineering Assessment chapter also considers the suitability of the ground at the proposed locations of structures, in terms of foundation types. Ground improvement methods to accommodate shallow foundations will be considered where appropriate, and deep (piled) foundations will be suggested where poor ground is likely to make such treatments uneconomical.

Geological Units

4.3.16 The 2021 GI has been used as the basis of the ground model. Exploratory hole logs have been reviewed in conjunction with site observations, in situ test results and laboratory testing to determine a set of geological units.

4.3.17 During site operations, materials were identified in exploratory holes by visual examination and tactile field assessments. These revealed expected soils of glacial and fluvial origin, some clearly granular in nature and some evidently fine soils, using field tests in accordance with BS5930 (10). The granular deposits were predominantly coarser sands and gravels, consistent with fluvio-glacial deposition. The fine soils had their origin in the lodgement tills and therefore comprised sand, gravel, cobble and boulder mixtures with a significant proportion in the fine fractions (silt and clay). These fine soils exhibited characteristic re-moulding capability, but in some cases were also evidently very sandy. The fluvial soils presented an organic nature, described as a Peat with gravel constituents and fine soil inclusions as pockets.

4.3.18 In the laboratory, PSD and Atterberg Limits were undertaken as described in section 4.2 above.

4.3.19 The envelope of all available PSDs for all exploratory holes is given below as Figure 4-4 (and included at larger scale in Appendix B).

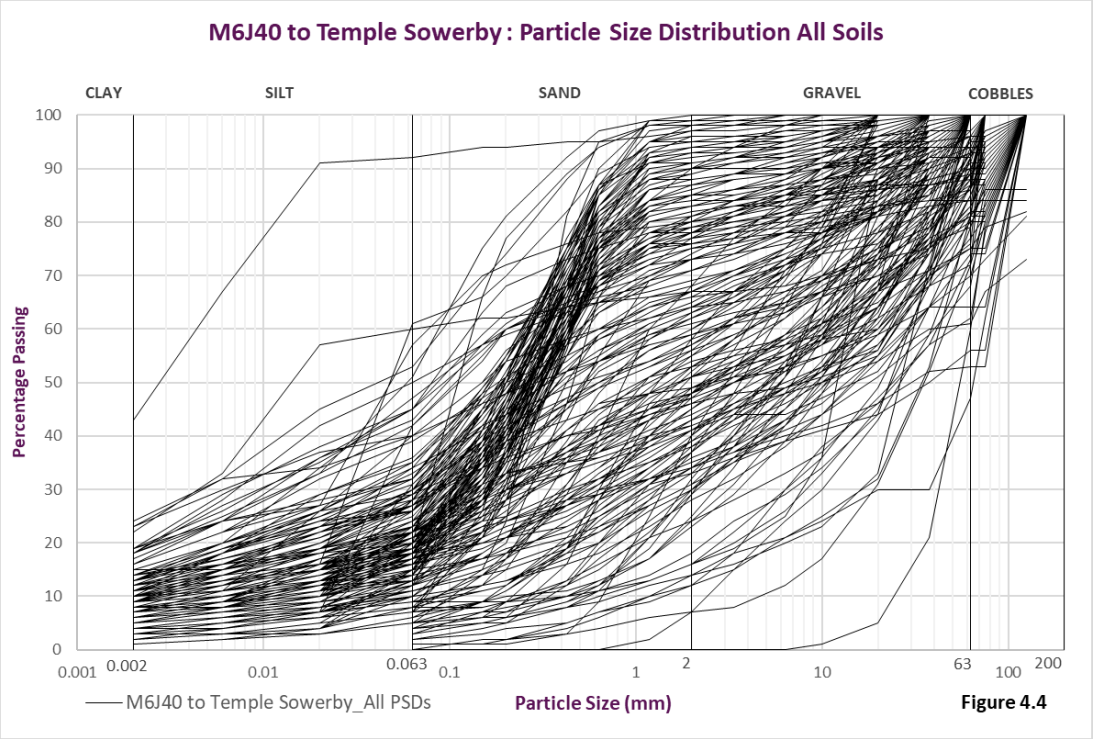

Figure 4-4 : M6J40 to Temple Sowerby – Particle Size Distribution Plots

4.3.20 In Figure 4-4, the overall envelope of PSDs shows a range of materials as expected. In order to differentiate between the geological units, criteria around grading limits were defined. These limits were determined by analysis and review of both the geological setting and the physical characteristics of the material particles. With this in mind, glacial deposits were anticipated, both lodgement tills deposited at the base of the ice sheets and fluvio-glacial tills deposited from glacial meltwaters. The former were expected to have significant proportions of fine grained soils (silts and clays) and the latter more granular soils (sands, gravels and cobbles). Grading limits were then developed based on these broad classifications. Table 4-1 shows the main geological units and the grading limits adopted. It became evident that the fine soils that were observed as 'sandy' during fieldwork did indeed contain significant fractions of sand and fines and the geological unit GT_V was defined for materials with this composition.

Table 4-1 : Geological Units - Definition and Grading Limits

Geological Unit	Generic Description	Detailed Grading Limits
SAND	Virtually pure sand with small amounts of gravel and silts. May represent both some fluvial deposition in lenses OR primary weathering of Penrith Sandstone (PS).	Greater than 85% sand fraction and less than 15% fines.
GT_S	Granular Glacial Till with varying range of particle sizes but principally coarse. Includes sands and gravels.	SAND less than 85%, FINES less than or equal to 15%, GRAVEL less than 50%
FL_GT	Fluvioglacial similar to GT_S but generally coarser with more gravel.	SAND less than 85%, FINES less than or equal to 15%, GRAVEL greater than or equal to 50%

Geological Unit	Generic Description	Detailed Grading Limits
GT_V	Cohesive Glacial Till, but with strong SAND component appearing as clayey SAND or sandy CLAY.	SAND less than 85%, but FINES between 15% and 22%
GT_CO	Cohesive Glacial Till with large range of particle sizes.	SAND less than 85%, but FINES greater than 22%
ALV	Alluvium blackish brown fibrous Peat with plant remains, rare gravel and pockets of soft to firm gravelly clay.	
Notes:		
1	SAND, GRAVEL, and FINES relate to standard sieve sizes in BS EN ISO17892-4:2016 (29). SILT sizes are from 0.063mm down to 0.002mm diameter. FINES refers to all particle sizes from 0.063mm diameter down, SAND refers to particles between 0.063mm diameter and 2mm diameter, GRAVEL refers to particle sizes from 2mm diameter to 63mm diameter. For completeness, the standard defines COBBLE sizes from 63mm to 200mm and BOULDERS when coarser than 200mm diameter.	

4.3.21 In addition to the geological units in Table 4-1 for the superficial deposits, the bedrock geology consists predominantly of sandstone of the Penrith Sandstone formation (PS and PS_W) together with the Stainmore Formation and Alston Formation toward the western scheme extent.

4.3.22 Where man-made features are present, these tend to be earthworks associated with road construction or agriculture. The materials used in most cases are locally sourced, comprising re-worked tills. Where road pavement layers were excavated, the granular sub-base and capping materials had generally been sourced from locally quarried rocks. These various materials are generically referred to as MADE GROUND in exploratory hole logs, either GRANULAR or COHESIVE. In this scheme, the made ground is predominantly fine (cohesive) soil of re-worked glacial till.

4.3.23 Typically, where exploratory holes were formed in agricultural land, grass and topsoil were present in the upper 200mm to 300mm of the soil. This unit is described as TOPSOIL in the exploratory hole logs.

4.3.24 In general, the sequence of materials from ground level commences with topsoil and ends in the bedrock. Between these horizons, the units identified in Table 4-1 are present. Due to the nature of glacial deposition, some of the units may not be present in a particular area. Furthermore, individual units may be present in multiple layers or lenses in areas, leading to a mixed stratigraphic sequence. However, it is typical to find either fine (cohesive) glacial till (GT_V and GT_CO) or coarser (granular) glacial till (GT_S and FL_GT) as the predominant unit in a given area.

4.3.25 The unit identified as SAND can be a fluvio glacial or fluvial deposit, or be completely weathered Penrith Sandstone (PS). As such, it tends to be present as a layer lying directly on the remaining non-weathered PS rock mass below.

4.3.26 Organic rich deposits identified as ALV are associated with fluvial deposits and Alluvium. These typically comprise peat with inclusions of gravel and soft gravelly clay pockets. This deposit has only been encountered at two locations at depths less than 5m begl (below existing ground level).

Geological Sections

4.3.27 Using the geological units identified above, the exploratory hole information for the whole of Package B has been plotted on a geotechnical longitudinal ("long") section along the centreline of the proposals in line with design freezes 'D' and 'E'. Each long section is shown beneath its accompanying scheme layout plan. The positions of the exploratory holes are presented on the plan.

4.3.28 Given the length of the scheme, a number of drawings are needed to present the complete long section and plans. These are listed in Table 4-2.

Table 4-2 : M6J40 to Temple Sowerby - Geological Long Section Drawing List

Drawing Number	Drawing Title
HE565627-AMY-HGT-S02-DR-CE-000101	Package B M6J40 – Kemplay Bank Roundabout GIR Drawings Sheet 1 of 4
HE565627-AMY-HGT-S02-DR-CE-000102	Package B M6J40 – Kemplay Bank Roundabout GIR Drawings Sheet 2 of 4
HE565627-AMY-HGT-S02-DR-CE-000103	Package B M6J40 – Kemplay Bank Roundabout GIR Drawings Sheet 3 of 4
HE565627-AMY-HGT-S02-DR-CE-000104	Package B M6J40 – Kemplay Bank Roundabout GIR Drawings Sheet 4 of 4
HE565627-AMY-HGT-S03-DR-CE-000101	Package B Center Parcs GIR Drawings Sheet 1 of 7
HE565627-AMY-HGT-S03-DR-CE-000102	Package B Center Parcs GIR Drawings Sheet 2 of 7
HE565627-AMY-HGT-S03-DR-CE-000103	Package B Center Parcs GIR Drawings Sheet 3 of 7
HE565627-AMY-HGT-S03-DR-CE-000104	Package B Center Parcs GIR Drawings Sheet 4 of 7
HE565627-AMY-HGT-S03-DR-CE-000105	Package B Center Parcs GIR Drawings Sheet 5 of 7
HE565627-AMY-HGT-S03-DR-CE-000106	Package B Center Parcs GIR Drawings Sheet 6 of 7
HE565627-AMY-HGT-S03-DR-CE-000107	Package B Center Parcs GIR Drawings Sheet 7 of 7

4.3.29 The long sections show the exploratory holes within a defined perpendicular distance of the centreline. This distance or "buffer" is set to include all exploratory holes within the footprint of the proposed earthworks. Where such projection includes exploratory holes that are very close together, one or more may be omitted or moved slightly for clarity. However, all exploratory holes are considered in assessment of the ground investigation information in following parts of this report.

4.3.30 The drawings listed in Table 4-2 show the exploratory holes and the assessed geological units.

4.4 Test Results and Derived Parameters

4.4.1 This section of the report summarises the stratigraphy and the geological units that are present between M6 Junction 40 (M6J40) and Temple Sowerby. By examination of the in situ

and laboratory test results, the parameters for preliminary design have been determined. This allows a geotechnical assessment and ground model to be developed for the whole M6J40 to Temple Sowerby scheme.

4.4.2 The area wide ground model then provides the basis for separate assessment of each of the two proposed scheme sections within its limits:

- M6J40 to Kemplay Bank Roundabout
- Penrith to Temple Sowerby

4.4.3 Each of these schemes is considered in the Engineering Assessment section 9, using the findings of the area wide model. Where local test results are in agreement with the area wide ground model, those derived parameters will be adopted at the scheme level. Where there are significant local variations in test results, derived parameters at the scheme level will be adjusted accordingly.

4.4.4 The rationale for determination of geological units was given earlier and those geological units have been assigned to each stratum in each exploratory hole.

4.4.5 For earthwork cuttings, stability considerations are paramount and assessment of shear strength parameters is required.

4.4.6 For earthwork embankments, in addition to shear strength parameters and compressibility of the embankment material itself, similar properties of the soil below the proposed foundation level must be assessed. Further, the materials used for embankment construction must be workable and compliant with the current Specification for Highway Works.

4.4.7 For structure foundations, the compressibility characteristics and bearing capacity are primary concerns.

4.4.8 In order to derive parameters for future design, Table 4-3 lists the design scenario (cutting, embankment, structure) and the parameters that need to be derived for each. As described earlier, the in situ test results, laboratory test results and relevant correlations will be considered in deriving parameters. These derived parameters also provide a basis for selection of characteristic material parameters at a future date, when the detailed design process will be undertaken.

Table 4-3 : Design Scenarios and Material Parameters

Design Scenario	Requirement	Relevant Parameters	
EARTHWORK CUTTING	Classification of excavated materials	a	Particle Size Distribution
		b	Moisture Content
		c	Atterberg Limits – Plasticity Index, Liquid Limit and Plastic Limit Moisture Contents
		d	Chemical Stability – Sulfate and pH
	Subgrade Stiffness Characteristics (including road pavement design)	e	California Bearing Ratio – soil In Situ (foundation sub-grade)

Design Scenario	Requirement	Relevant Parameters	
			Lightweight Deflectometer – soil In Situ Subgrade Stiffness Modulus
	Cutting face stability	f	Undrained shear strength
		g	Drained shear strength
	Rock Cutting face stability	h	Unconfined Compressive Strength in conjunction with mapping of rock mass structural geology (fractures, bedding, planes of weakness) to assess rock mass shear strength parameters.
EARTHWORK EMBANKMENT	Placement of fill - compaction characteristics, strength (remoulded) of fill materials, excavated from earthworks cuttings for re-use.	i	Bulk density, bulking factor
		j	Compaction - Dry density relationship with moisture content
		k	Compaction Assessment – Moisture Condition Value (MCV)
		l	Compaction Assessment – MCV/Moisture Content Relationship
		m	Remoulded undrained shear strength of fine material
		n	Remoulded drained shear strength of fine material
		o	Remoulded drained shear strength of coarse material
	Embankment Formation Stiffness Characteristics (including road pavement design)	p	California Bearing Ratio – soil after remoulding (used as fill)
	Embankment Formation Compressibility/Settlement	q	Coefficient of Volume Compressibility, Coefficient of Consolidation, Time for Consolidation
	Earthworks - Classification of fill materials (generally site won from earthworks cuttings)	a b c d	As a to d above
	Embankment subgrade strength	f	As f above
		g	As g above
STRUCTURE FOUNDATION	Support to spread footing – bearing capacity	f	As f above, for fine foundations soils, immediate strength
		g	As g above for fine and coarse foundation soils, long term strength.
		h	As h above. Unconfined Compressive Strength for spread footings on rock.
	Settlement of spread footing under working loads	q	As q above.
	Support to piled foundations – shaft and base resistance	f	As f above, for fine foundations soils, immediate strength.
		g	As g above for fine and coarse foundation soils, long term strength.
	Settlement of piled foundations under working loads	r	Mass deformation modulus (stiffness), fine and coarse soil or rock at pile toe. (Used with pile stiffness modulus, although this is not in scope of this report).

4.4.9 In order to derive the material parameters listed in Table 4-3, various laboratory and in situ test results need to be considered. The following approach has been adopted to evaluate the test results:

- List the test types undertaken – in situ and laboratory.

- For each of the geological units described earlier, determine the range of results for each test and identify minimum, maximum, and mean values.
- For each of the geological units, derive relevant parameters from the results, considering the range of values and the statistical validity of the number of tests. Given the nature of preliminary design, significant variation in material characteristics is likely, but this report will consider relevant literature to discard outliers to enable suitable parameter values to be determined.

4.4.10 This process will allow derivation of the material parameters for the overall area between M6 Junction 40 and Temple Sowerby. From this set of material parameters, subsets can be identified for the three individual schemes, depending on the design scenarios envisaged. Given this report is based on the 2021 GI (8), there may be significant physical gaps between exploratory holes, In Situ test locations and particular earthworks features, including side roads and SuDs locations. Where this is the case, relevant parameters will still be derived and reported, with the understanding that they will be best estimates until more specific targeted exploratory holes are undertaken in future. At time of writing, a Phase 2 Ground Investigation is planned, using a gap analysis to identify locations where more specific information is required.

4.4.11 Table 4-4 provides the list of laboratory and in situ test types undertaken. Tests were carried out in accordance with relevant standards as reported in the 2021 GI (8). For each geological unit, the results of each test type will be reviewed and the range of values and probable mean values determined. From these, the set of derived material parameters will then be determined and summarised.

Table 4-4 : In Situ and Laboratory Test types

Test Type	Test	Unit	Comments
Laboratory	Water Content (WC)	%	General soil property and determinant of behaviour, particularly fine soils. Ratio of water mass to dry soil mass in a given soil sample.
	Atterberg Limits (AL)	%	For fine soils, water content (see above) range where the material behaviour is plastic. Lower bound water content is referred to as the plastic limit, upper bound as the liquid limit. Used to determine soil class for Specification for Highway Works (SHW).
	Particle Size Distribution (PSD)	%	Mass of soil particles in different size ranges or fractions in a soil sample. Expressed as percentage of total mass of soil passing each fraction using standard test sieves. Used to determine soil class for SHW.
	Particle Density (PD)	Mg/m^3	Result for use in a number of laboratory tests and reports. Value generally assumed as 2.65 in absence of site-specific determination.
	Dry Density / Moisture Content Relationship (DD/OMC) using 2.5kg rammer	Mg/m3 vs. %	Compaction assessment. Determines dry density for a range of water contents to determine the maximum dry density and corresponding water content. Referred to as Optimum Moisture Content (OMC).

Test Type	Test	Unit	Comments
	Moisture Condition Value (MCV and MCV Cal)	-	Measurement of effort to achieve maximum compaction and used as a field quality control method. A suitable range of water contents including where possible, the natural moisture content, is tested to determine a calibration range. Used with undrained shear strength for compliance control of earthworks materials during construction.
	California Bearing Ratio (CBR)	%	Surface stiffness modulus measurement - related to a reference value of displacement/stress and expressed as a percentage. For road pavement design.
	One Dimensional Consolidation by Oedometer	m^2/MN m^2/year	Coefficient of Volume Compressibility (m_v) and Coefficient of Consolidation (C_v). Respectively determine magnitude and rate of compression under working loads.
	Triaxial Compression	kPa and/or degrees	Immediate shear strength of fine soils, undrained. Effective (long term) shear strength of fine soils, drained.
	Shearbox	kPa and/or degrees	Effective (long term) shear strength of coarse soils, drained.
	Uniaxial Compressive Strength	MPa	Compressive strength of rock. (UCS)
	Point Load Index	MPa	Compressive strength of rock used in correlation to determine UCS.
In Situ	Standard Penetration Test (SPT)	N60	Blow count over standard test drive, corrected to 60% energy ratio for standard hammer. In granular soils, provides a measure of relative density and used to assess internal angle of friction. In fine soils, value is used in standard correlations to derive undrained strength.
	Hand Shear Vane (HSV)	kPa	Undertaken in fine soil samples from trial pits. Provides a measure of peak and residual undrained shear strength.
	Plate Bearing Test	kPa/m	Provides a Modulus of Subgrade Reaction (displacement under given stress). Also used in correlation to derive California Bearing Ratio.
	Light Weight Deflectometer	MPa	Determines a subgrade surface stiffness modulus E_{mod} which provides the basis for pavement foundation design.
	Soakaway (Infiltration) Testing	m/s	Determines the infiltration rate into the existing ground. Used in design of soakaway and detention ponds in drainage scheme design.
	Photo-Ionisation Detector (PID) measurement of volatile hydrocarbons	ppm	Determination of presence and concentration of volatile organic compounds in soils. This property is related to ground chemistry and is discussed in the geo-environmental model section of the report.
	Groundwater Level	mAOD	The ground water level, as measured in standpipes and piezometers installed in exploratory holes. Measured on separate occasions to consider seasonal trends.

4.4.12 In each of the following sections, the test results are evaluated under the headings of the geological units. For each unit, the section describes the tests and reports and summarises results. In Appendix B Geotechnical Charts, selected charts are provided at larger scale.

4.4.13 All MDD/OMC relationships were carried out using the Standard Proctor (2.5kg hammer). It is intended to undertake a study during the next phase of investigation using a mixture of both the Standard Proctor and the Modified Proctor (4.5kg rammer) to assess variation of MDD/MC.

Test Results – TOPSOIL

4.4.14 Topsoil is generally the uppermost soil horizon comprising the initial 300mm or so of the stratigraphical soil sequence. This soil is typically the product of farming and ploughing action resulting from crop development and grazing activities. Table 4-5 below summarises where the Topsoil horizon was encountered.

Table 4-5 : TOPSOIL – Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Grass overlying brown slightly clayey silty fine to coarse SAND with frequent rootlets. Grass overlying soft brown slightly gravelly slightly sandy CLAY with frequent rootlets. Sand is fine to coarse. Gravel is angular to subrounded fine to medium of sandstone. Grass overlying dark brown slightly gravelly slightly clayey medium to coarse SAND with low cobble content and frequent rootlets. Gravel is angular to subrounded fine to coarse sandstone. Cobbles are subangular to angular sandstone (up to 70 mm). Long grass overlying brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets and roots (up to 20mm). Gravel is subangular to subrounded fine to coarse of mixed lithologies including mudstone. Soft to firm brown gravelly sandy CLAY with frequent rootlets. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Grass overlying dark brown gravelly very clayey fine to coarse SAND with frequent rootlets and low cobble content. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. Cobbles are subrounded to rounded of mudstone and sandstone. Grass (thin) overlying brown gravelly clayey fine to coarse SAND with occasional rootlets and low cobble content. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles are subangular to subrounded of mixed lithologies including sandstone.
BH M6J40.002, BH KBR002, BH KBR003, BH KBR011, BH PTS003, BH PTS005, BH PTS006, BH PTS007, BH PTS009, BH PTS010, BH PTS011, BH PTS012, BH PTS013, BH PTS014, BH PTS015, BH PTS018, BH PTS019, BH PTS020, BH PTS021, BH PTS022, WS PTS016	0.00 – 0.80	
Trial Pits		
HTP M6J40.001, HTP M6J40.002, TP M6J40.004, TP M6J40.005, TP KBR003, TP KBR004, TP KBR005, TP KBR007, TP PTS001, TP PTS001A, TP PTS004, TP PTS004B, TP PTS005, TP PTS006, TP PTS007, TP PTS008, TP PTS009, TP PTS010, TP PTS012, TP PTS013, TP PTS014, TP PTS 016, TP PTS018, TP PTS021, TP PTS023, TP PTS024, TP PTS026	0.00 – 1.20	

Notes:
1. mbegl – metres below existing ground level

4.4.15 Locally the TOPSOIL unit increases in thickness to a recorded 1.20 mbegl this may be resultant of farming intervention or underlying weathering of the sandstone bedrock.

4.4.16 Plate Bearing tests were undertaken in this unit to determine Modulus of Subgrade Reaction directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Modulus Tests were undertaken in trial pits in several locations, at depths between ground level and 0.50m below existing ground level. For the Topsoil unit, a single test was undertaken and the result given in Table 4-6.

Table 4-6 : TOPSOIL - Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Modulus of Subgrade Reaction (MPa/m)	Equivalent CBR (%)
TP KBR003	0.50	81.50	20.00
TP KBR005	0.50	115.70	36.00
TP PTS001	0.50	49.80	8.40
TP PTS001A	0.50	70.40	15.00
Notes: 1. mbegl – metres below existing ground level			

4.4.17 Organic matter content tests were performed on selected samples of TOPSOIL, the results are summarised in Table 4-7.

Table 4-7 : TOPSOIL - Organic Matter Content Test Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Organic Matter content (%w/w)
TP PTS009	0.20	2.80
TP PTS013	0.20	1.80
M6J40 and KBR – No results		
RANGE	-	-
Notes: 1. mbegl – metres below existing ground level		

4.4.18 No further testing was carried on the TOPSOIL unit.

Test Results – MG_CO (Made Ground Cohesive)

4.4.19 “Made ground” is the description given to a soil which has been excavated from a local source and then used in farming, industrial or transportation infrastructure. The “made ground cohesive” MG_CO unit would typically have its origin in the fine glacial tills local to the route corridor. Table 4-8 presents a summary of where the MG_CO unit was encountered during the 2021 GI.

Table 4-8 :MG_CO - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		MADE GROUND: Stiff dark brown sandy gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of sandstone, mudstone, potential limestone, and granite. Cobbles are subangular of sandstone. MADE GROUND: Firm to stiff brown gravelly sandy CLAY with medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles are subangular to subrounded of mixed lithologies including sandstone. Grass overlying soft brown slightly gravelly sandy CLAY with frequent rootlets and low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles are subangular to subrounded of mixed lithologies including sandstone. (Reworked topsoil). MADE GROUND: Stiff to very stiff very high strength brown slightly gravelly sandy CLAY with low cobble content. Gravel is angular to subrounded fine to coarse of sandstone, mudstone, and occasional quartzite. Cobbles are angular to subrounded of mixed lithologies including sandstone.
BH KBR005, BH KBR007, BH KBR009, BH KBR012, SD KBR005, SD KBR007, SD KBR008, BH M6J40.004, BH M6J40.004A, BH M6J40.005-1, BH M6J40.005-2, BH M6J40.005A-4, BH M6J40.005A-5, SD M6J40.005a, BH PTS002, BH PTS008, BH PTS023	0.00 – 3.55	
Trial Pits		
TP KBR009, TP M6J40.001, TP M6J40.002, TP M6J40.003, TP M6J40.006, HP M6J40.009, TP PTS004A, TP PTS027	0.00 – 2.30	
Notes: 1. mbegl – metres below existing ground level		

4.4.20 The descriptions for cohesive made ground in Table 4-8 are typical descriptions, associated with reworked topsoil and cohesive glacial deposits. The fine fractions of the soil (clays and silts) will influence the material behaviour, as will the moisture content and plasticity of the fine matrix. In particular, the proportions of the various fractions and particle shape and moisture content will control the strength characteristics of the whole soil matrix. This is discussed later in the 'Derived Parameters' section for the MG_CO unit.

4.4.21 In situ and laboratory test results for the MG_CO unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.22 A total of 5 Standard Penetration Tests were performed in boreholes for this unit. These are summarised in Table 4-9 below.

Table 4-9 : MG_CO - Standard Penetration Test Results

Exploratory Hole	Test Depth (mbegl) Note 1	Standard Penetration Test Result N_{60}
SD M6J40.005a	1.50	12
SD M6J40.005a	3.00	36
BH KBR007	1.20	14
BH KBR007	2.00	49
SD KBR005	1.50	30
Notes: 1. mbegl – metres below existing ground level		

4.4.23 Figure 4-5 presents a graphical summary of the N_{60} results with depth.

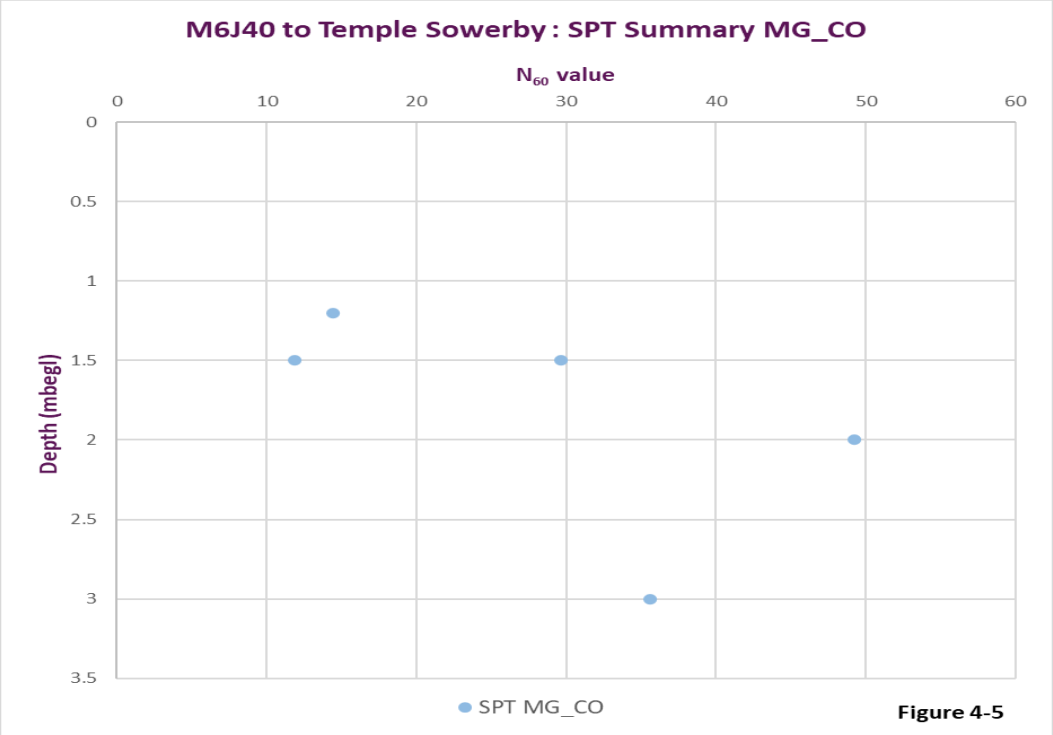

Figure 4-5 : MG_CO - SPT N_{60} versus Depth

4.4.24 The relationship between natural moisture content and plastic limit is a determinant of re-usability of excavated fine soil in its natural or 'as-dug' condition. The SHW uses this relationship to classify acceptability of fill and generally allows a range of moisture contents around the plastic limit.

4.4.25 In the SHW, the **upper** limit moisture content designating Class 2B **dry** cohesive fills is set at (PL-4%). It follows that any material with a natural as-dug moisture content greater than (PL-4%) will therefore exceed this upper limit and will be designated as Class 2A **wet** cohesive fill.

4.4.26 In Figure 4-6 below, the difference between the natural moisture content and (PL-4%) is shown, in addition to the variation with depth. Positive values on the X-axis (NMC-[PL-4]) denote samples which are naturally wetter than PL-4% (Class 2A), while the reverse applies for negative values. Reference to Figure 4-6 below indicates approximately equal quantities of 2A and 2B within the MG_CO unit. The impact on suitability and re-use is discussed in the later earthworks appraisal sections.

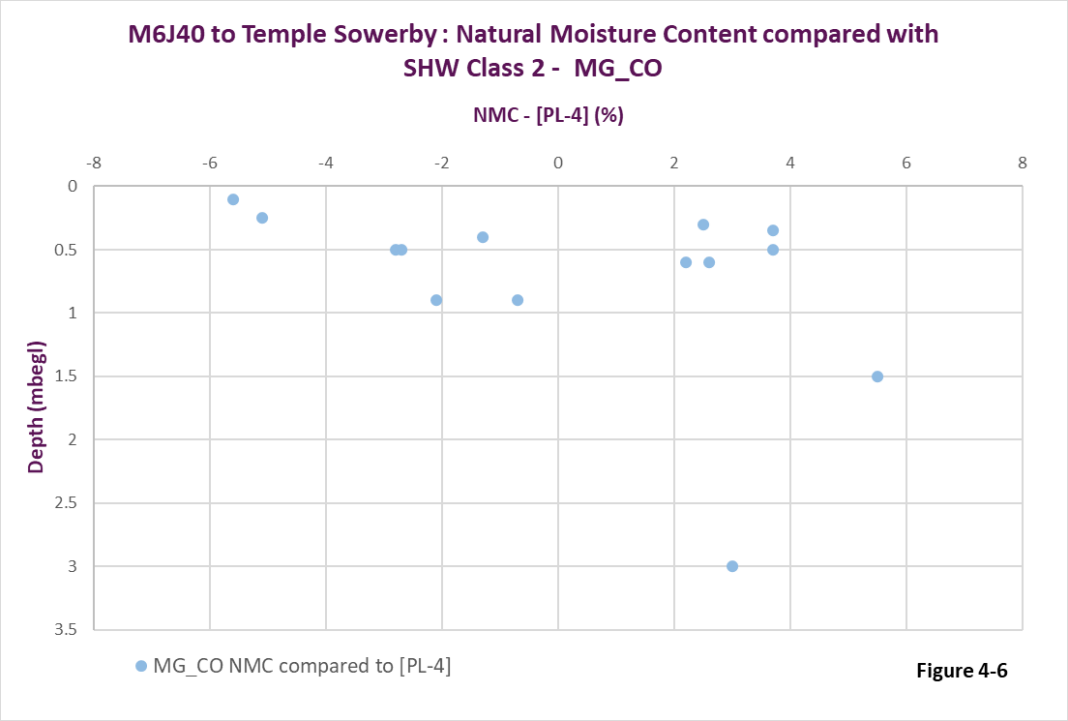

Figure 4-6 : MG_CO – Natural Moisture Content and SHW Class 2 Limit versus Depth

4.4.27 Compaction tests were undertaken on two samples of the MG_CO material and a relationship between dry density and moisture content was determined for each sample using a Standard Proctor mould. The relationships for individual tests can be found in the 2021 GI Factual Report (8). Table 4-10 provides the maximum dry density achieved for a given sample and the corresponding water content. It is noted that the Modified Proctor was not used to assess variation in MDD and MC, but may be considered during the next phase of investigation.

Table 4-10 : MG_CO – Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Maximum Dry Density (Mg/m^3)	Optimum Moisture Content (%)
BH KBR007	0.60	2.5kg	2.05	10.00
TP KBR009	1.50	2.5kg	2.05	9.40
Range	-	-	-	-

Notes:
1. mbegl – metres below existing ground level.

4.4.28 In addition to the limited compaction laboratory testing above, Moisture Condition Value (MCV) testing was undertaken on the MG_CO unit. Consideration of specific compaction testing of the MG_CO shall be included within future ground investigation phasing to feed into detailed design.

4.4.29 This test is aligned with compliance and quality control during earthworks filling operations. It provides a rapid means of assessing material suitability for filling without the requirement to measure the material moisture content. Instead, the expected effort to achieve near complete

compaction is measured by a blow count in standard test apparatus, where a function of the blow count at near full compaction is referred to as the MCV. MCV is determined at natural moisture content (single point) and is also determined on a range of moisture contents to provide a calibration line. The calibration line can then be used to provide a range of maximum and minimum values of MCV that equate to a satisfactory level of compaction for a given soil. Although a very wide range of soils can be suitable for the MCV test, granular soils with limited fines can prove unsuitable for both single point and calibration determinations. Given the foregoing, for the MG_CO unit, Table 4-11 lists the MCV tests undertaken.

Table 4-11 : MG_CO - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type Note 3	Moisture Content (%)	MCV (Value) Note 2
BH KBR007	1.20	Single	14.00	8.20
BH KBR009	0.90	Calibration	12.40	9.20
BH KBR009	0.90	Calibration	13.20	7.40
BH KBR009	0.90	Calibration	14.30	5.90
BH KBR009	0.90	Calibration	10.90	11.80
SD KBR008	0.50	Single	6.80	10.60
Range	**0.50 – 1.20**	**-**	**6.80 – 14.30**	**5.90 – 11.80**

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given as zero, there was no valid test result.
3. Where test type is single, the moisture content reported is the natural moisture content.

4.4.30 The MCV value and moisture content data pairs for all results are given in the figure below showing the range of potential MCV values and corresponding moisture contents for the MG_CO unit. The individual results from each calibration test are also shown (Figure 4-7), rather than each calibration line. Individual calibration lines can be viewed in the 2021 GI Factual Report. The calibration test results used a range of five moisture contents where possible with the natural moisture content covered within the range if possible.

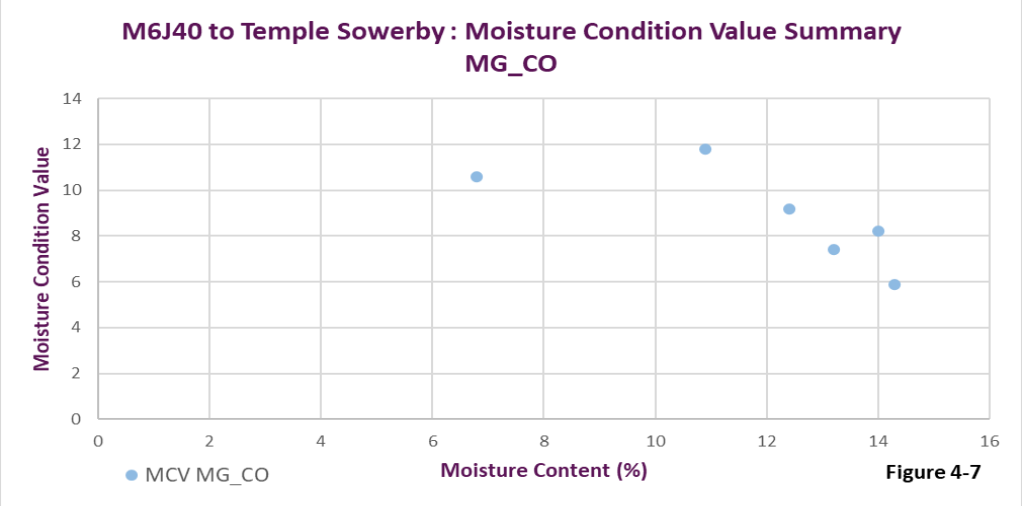

Figure 4-7 : MG_CO - Moisture Condition Value and Moisture Content Relationship

4.4.31 The results of the unsoaked laboratory CBR tests completed are presented in Table 4-12 below detailing the top and bottom CBR and moisture content results.

Table 4-12 : MG_CO - Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	CBR Top (%)	Moisture Content Top (%)	CBR Bottom (%)	Moisture Content Bottom (%)
M6J40					
SD M6J40.005a	2.50	1.90	13.00	1.70	13.00
TP M6J40.006	0.90	7.90	13.00	11.00	13.00
KBR					
BH KBR007	1.20	4.60	15.00	7.20	14.00
SD KBR005	1.30	3.40	12.00	3.30	12.00
TP KBR009	1.50	7.50	13.00	9.50	12.00
PTS – No Results					
Range	-	**2.90 – 7.90**	**12.00 – 15.00**	**1.70 – 11.00**	**12.00 – 14.00**

Notes:
1. mbegl – metres below existing ground level.
2. CBR values over 50% are considered unrealistic and a limitation of the test on individual samples, for example where a large piece of gravel is close to the test plunger.

4.4.32 In addition to the CBR results reported above, subgrade surface modulus was determined using lightweight deflectometer (section 3.4). The results are presented in Table 4-13 below.

Table 4-13 : MG_CO - Lightweight Deflectometer Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Subgrade Surface Modulus E_{min} / E_{max}/$E_{average}$ (MPa) Note 2		
TP M6J40.001	0.50	22.39	32.69	26.63
TP M6J40.002	0.50	29.23	61.68	47.94
TP M6J40.003	0.50	17.97	25.58	21.64
TBC (TP M6J40 006)	0.50	10.20	20.95	15.42
HP M6J40.009	0.50	68.17	78.36	72.84
RANGE	-	**10.20 – 68.17**	**20.95 – 78.38**	**15.42 – 72.84**

Notes:
1. mbegl – metres below existing ground level
2. E_{min} and E_{max} and $E_{average}$ determined from between 6 and 9 individual readings per test. First three sets readings not included as seating blows

4.4.33 Undrained shear strength (c_u) by triaxial testing was determined on two samples of MG_CO. To determine likely behaviour under new construction loading, lateral cell pressures in the unconsolidated undrained (UU) triaxial tests were set close to the in situ values, and the results are presented in the table below. Only single stage tests were performed. Tests were undertaken on a variety of samples inclusive of remoulded disturbed bulk samples. While undisturbed tube samples were tested on this occasion, further testing of this type of sample will be scheduled in the next phase of investigation.

4.4.34 In addition to the triaxial testing in situ standard penetration tests (SPTs) were performed within the MG_CO and the resulting N_{60} values were interpreted (18) to develop correlated C_u values. These values are presented in tandem with the UU triaxial results in Table 4-14 below.

Table 4-14 : MG_CO – Unconsolidated Undrained Shear Strength and Correlated SPTs

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Unconsolidated Undrained Shear Strength, C_u (kPa)	Correlated SPT N_{60}, C_u (kPa)
M6J40				
TP M6J40.006	0.90	B	187.00	-
SD M6J40.005a	2.50	B	31.00	-
SD M6J40.005a	1.50	SPT	-	54
SD M6J40.005a	3.00	SPT	-	163
KBR				
BH KBR007	1.20	SPT	-	66
SD KBR005	1.50	SPT	-	136
BH KBR007	2.00	SPT	-	226
PTS – No results available during this phase of investigation.				
Notes: 1. mbegl – metres below existing ground level 2. B = Bulk sample, remoulded for test; UT = “Undisturbed” thin wall tube sample, SPT = In Situ Standard Penetration Test correlation				

4.4.35 Samples of soil were tested to determine aqueous extract sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (27). The pH and sulfate values for the MG_CO unit are given in Table 4-15. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10mg/l. Results were only obtained for the M6J40 to KBR section of Package B.

4.4.36 Further chemical testing will be considered during the next phase of ground investigation, particularly at the location of structures and where areas of buried concrete are expected.

Table 4-15 : MG_CO - pH and Sulfate Concentrations

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l)
M6J40			
TP M6J40.006	0.50	7.90	13.00
SD M6J40.005a	2.50	8.40	98.00
KBR			
TP KBR009	1.50	7.70	22.00
SD KBR005	0.50	7.70	14.00
SD KBR008	0.50	7.80	16.00
SD KBR005	1.30	8.30	39.00
BH KBR007	2.00	9.90	27.00
PTS – No results			
RANGE	**0.50 – 2.50**	**7.70 – 9.90**	**13.00 – 98.00**
Notes: 1. mbegl – metres below existing ground level.			

4.4.37 There were no further in situ or laboratory tests on the MG_CO material.

Test Results – MG_GR (Made Ground Granular)

4.4.38 The “made ground granular” MG_GR unit is expected to have its origin in the coarse glacial tills local to the route corridor or is derived from a quarry source. In other cases, granular made ground has a more obvious origin in man-made materials, such as asphalt, brick, concrete, often demolition rubble used as fill. These materials may also indicate in situ remnants of historical structures or foundations.

4.4.39 Locally MG_GR is identified as reworked Topsoil, presenting as a clayey Sand with rootlets.

4.4.40 This MG_GR material was encountered in exploratory holes across Package B and these are listed in Table 4-16. In general, the MG_GR unit is present from ground surface, given its primary purpose of forming fill areas for the infrastructure purposes noted above.

Table 4-16 : MG_GR - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		MADE GROUND: Dark brown slightly gravelly fine to coarse SAND with occasional roots and rootlets. Gravel is subangular to subrounded fine to coarse of sandstone, limestone, and mudstone. (Reworked Topsoil). MADE GROUND: Brown sandy clayey GRAVEL with low cobble content and low boulder content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of mixed lithologies including asphalt. Cobbles and boulders are subangular of asphalt. MADE GROUND: Black ASPHALT wearing course recovered as black sandy angular fine to coarse GRAVEL of asphalt and limestone with a strong tar odour. MADE GROUND: Grass overlying blackish brown gravelly clayey fine to coarse SAND with frequent rootlets and low cobble content. Gravel is angular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles are subangular to subrounded of sandstone. Contains general waste and loose metal bars (rebar). (Reworked Topsoil) MADE GROUND: Light orangish brown sandy clayey GRAVEL with high cobble content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of mixed lithologies including sandstone and rare brick. Cobbles are subangular of mixed lithologies.
BH KBR005, BH KBR006, BH KBR006, BH KBR007, BH KBR008, BH KBR008, BH KBR012, BH M6J40.001, BH M6J40.002A, BH M6J40.002A-1, BH M6J40.004, BH M6J40.004A, BH M6J40.005A-1, BH M6J40.005A-1, BH M6J40.005A-2, BH M6J40.005A-3, BH M6J40.005A-3, BH M6J40.005A-4, BH M6J40.005A-5, BH PTS001A, BH PTS001A, BH PTS001A, BH PTS008 BH PTS017, BH PTS023, SD KBR008, SD M6J40.005a, WS PTS016A	0.00 – 3.65	
Trial Pits		
HP M6J40.009, TP KBR009, TP M6J40.001, TP M6J40.002, TP M6J40.003, TP M6J40.007, TP PTS003, TP PTS015, TP PTS017, TP PTS019, TP PTS020, TP PTS022 TP PTS025, TP PTS027	0.00 – 1.50	
Notes: 1. mbegl – metres below existing ground level		

4.4.41 The description for granular made ground in Table 4-16 is a typical description, associated with man-made materials. Whether from this source or from a more natural source in the coarse tills, the coarse fractions of the soil (sands, gravels) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics of the whole soil matrix. This is discussed later in the ‘Derived Parameters’ section for the MG_GR unit.

4.4.42 In situ and laboratory test results for the MG_GR unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.43 As the MG_GR unit is generally found at shallow depth, it was not possible to undertake Standard Penetration Tests in boreholes for this unit. There are currently no results in Table 4-17 below. However, the table will be left for inclusion of results following planned future investigation.

Table 4-17 : MG_GR – Standard Penetration Test Results

Exploratory Hole	Test Depth (mbegl) Note 1	Standard Penetration Test Result N_{60}
None	-	-
Notes: 1. mbegl – metres below existing ground level		

4.4.44 The MG_GR material is a likely candidate for future re-use in earthworks, being free-draining and readily compacted. A single compaction test was undertaken on the material and a relationship between dry density and moisture content was determined for this sample. The graphical relationship can be found in the 2021 GI Factual Report. Table 4-18 provides the maximum dry-density achieved for a given sample and the corresponding water content for this singular test.

Table 4-18 : MG_GR - Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Moisture Content at Maximum Dry Density (%)
KBR			
TP KBR006	0.30	1.78	16.00
RANGE	-	-	-
Notes: 1. mbegl – metres below existing ground level			

4.4.45 In addition to the compaction test undertaken above, a single point Moisture Condition Value (MCV) test was undertaken. The outcome of that test is summarised in Table 4-19 below.

Table 4-19 : MG_GR - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%) Note 2	MCV (Value)
KBR				
TP KBR006	0.30	Single	17.00	9.10
RANGE	-	-	-	-
Notes: 1. mbegl – metres below existing ground level. 2. Where Test Type is Single, the water content for the test is natural				

4.4.46 Strength of granular materials has been directly determined by shearbox testing. These tests determine the peak and residual effective angles of internal friction (phi') and any associated apparent cohesion (c'). By definition, shearbox testing is in terms of total stress, but assumes full drainage (dissipation of pore pressures) during shearing and consequently, effective strength parameters are determined (phi' and c'). For the MG_GR unit, Table 4-20 shows the testing undertaken and the strength parameters determined in each test. Only two tests were completed within the MG_GR unit, as such, the requirement for further testing shall be considered within the next phase of investigation.

Table 4-20 : MG_GR – Triaxial Testing (Effective Stress)

Exploratory Holes	Sample Depth (mbegl) Note 1	Shear Strength Parameters Note 2	
		c' (kPa)	Phi' (degrees)
M6J40			
BH M6J40.004	0.30	10	36.50
KBR			
TP KBR009	1.00	0	22.00
PTS – No Results			
RANGE	-	-	-

Notes:
1. mbegl – metres below existing ground level
2. c' and phi' are complementary elements of the shear strength. However, c' can be an artefact of testing and is often ignored, so that the shear strength range is for the angle of shearing resistance phi' only. This range is reported here.

4.4.47 The limited shear strength results within the MG_GR preclude the ability to determine a correlation with depth or otherwise. Further testing shall be considered within the next phase of investigation.

4.4.48 Plate Bearing tests were undertaken in this unit to determine modulus of subgrade reaction directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Tests were undertaken in trial pits in several locations, at depths between ground level and 0.50m below existing ground level. For the MG_GR unit, these test results are given in Table 4-21 below.

Table 4-21 : MG_GR - Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Modulus of Subgrade Reaction K762 (MPa/m)	Equivalent CBR (%)
PTS			
TP PTS003	0.50	104.10	30.00
TP PTS027	0.50	73.40	17.00
RANGE	-	-	-

Notes:
1. mbegl – metres below existing ground level

4.4.49 In situ plate bearing tests were described above, where equivalent CBR is determined by empirical correlation with stiffness. In addition to these, a single laboratory CBR test was undertaken. For the MG_GR unit, the result is given in Table 4-22.

Table 4-22 : MG_GR - Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content Top (%)	CBR Top (%)	Moisture Content Bottom (%)	CBR Bottom (%)
TP KBR006	0.30	13.00	15.00	13.00	16.00
RANGE	-	-	-	-	-
Notes: 1. mbegl – metres below existing ground level.					

4.4.50 In addition to the plate bearing test reported above, subgrade surface stiffness modulus was determined using lightweight deflectometer (section 3.4). The result is presented in Table 4-23.

Table 4-23 : MG_GR – Lightweight Deflectometer Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Subgrade Surface Stiffness Modulus, E_{max} / E_{min} / $E_{average}$ (MPa) Note 2
TP KBR006	0.50	72.82 / 41.02 / 61.07
RANGE	-	-
Notes: 1. mbegl – metres below existing ground level 2. E_{min} and E_{max} and $E_{average}$ determined from between 6 and 10 individual readings per test.		

4.4.51 Samples of soil were tested to determine aqueous extract sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (30). The pH and sulfate values for the MG_GR unit are given in Table 4-24 below. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10mg/l. Results were only obtained for the M6J40 to KBR section of Package B. Further chemical testing shall be programmed during the next phase of ground investigation, particularly at the location of structures and areas of buried concrete are expected.

Table 4-24 : MG_GR - pH and Sulfate Concentrations

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l)
KBR			
TP KBR006	0.30	7.50	22.00
M6J40 and PTS – No results			
RANGE	-	-	-
Notes: 1. mbegl – metres below existing ground level.			

4.4.52 Testing of Organic Matter was undertaken on select samples pertaining to the Penrith to Temple Sowerby scheme at two sample locations. The results are presented in Table 4-25.

Table 4-25 : MG_GR - Organic Matter Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Organic Matter (%w/w)
BH PTS001A	0.40	9.90
BH PTS001A	0.70	6.50
RANGE	-	-

Notes:
1. mbegl – metres below existing ground level.

4.4.53 There were no further in situ or laboratory tests performed on the MG_GR unit.

Test Results - GT_S (Granular Glacial Till)

4.4.54 The GT_S unit is a granular material with its origin in the lodgement tills. Further glacial actions have generally resulted in wash-out of a portion of the finer fractions, leaving predominantly silty clayey sands and gravels. Table 4-26 lists the exploratory holes where the GT_S unit was found.

Table 4-26 : GT_S - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Medium dense reddish brown slightly gravelly clayey fine to coarse SAND. Gravel is angular to subangular fine to coarse of mixed lithologies including sandstone. Reddish brown slightly sandy clayey GRAVEL with pockets of sandy clay and medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of sandstone and volcaniclastic sandstone. Cobbles are subangular of volcaniclastic sandstone. Orangish brown slightly gravelly clayey fine to coarse SAND with low cobble content. Gravel is subangular to rounded fine to coarse of mixed lithologies including mudstone, siltstone, and limestone. Cobbles are subangular to subrounded of mixed lithologies including semipelite, siltstone and quartzite. Dense dark brown clayey gravelly fine to coarse SAND with low cobble content. Gravel is angular to subrounded fine to coarse of mixed lithologies including slate, schist, granite, and andesite. Cobbles are subrounded of mixed lithologies including granite.
BH M6J40.002A-1, SD M6J40.005a, BH KBR006, BH KBR011, SD KBR005, BH PTS001A, BH PTS003, BH PTS005, BH PTS006, BH PTS007, BHPTS010, BH PTS011, BH PTS012, BH PTS013, BH PTS014, BH PTS015, BH PTS017, BH PTS018, BH PTS019, BH PTS021, BH PTS022, WS PTS016, WS PTS016A.	0.20 – 13.95	
Trial Pits		
TP M6J40.002, TP KBR005, TP PTS003, TP PTS005, TP PTS006, TP PTS007, TP PTS008, TP PTS009, TP PTS010, TP PTS015, TP PTS016, TP PTS017, TP PTS018, TP PTS019, TP PTS020, TP PTS021, TP PTS022, TP PTS027	0.30 – 3.50	

Notes:
1. mbegl – metres below existing ground level

4.4.55 The descriptions for GT_S in Table 4-26 are typical. Generally described as clayey gravelly SAND and less often as clayey sandy GRAVEL, the coarse fractions of these soils (sands, gravels) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics

of the whole soil matrix. This is discussed later in the 'Derived Parameters' section for the GT_S unit.

4.4.56 In situ and laboratory test results for the GT_S unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.57 Particle Size Distribution tests were carried out on selected samples of the GT_S unit. The results of the tests generally correlate well with the engineering descriptions provided in the respective exploratory hole logs, presenting sand or gravel as the primary constituent. The PSD curves are presented below in Figure 4-8 to demonstrate this correlation.

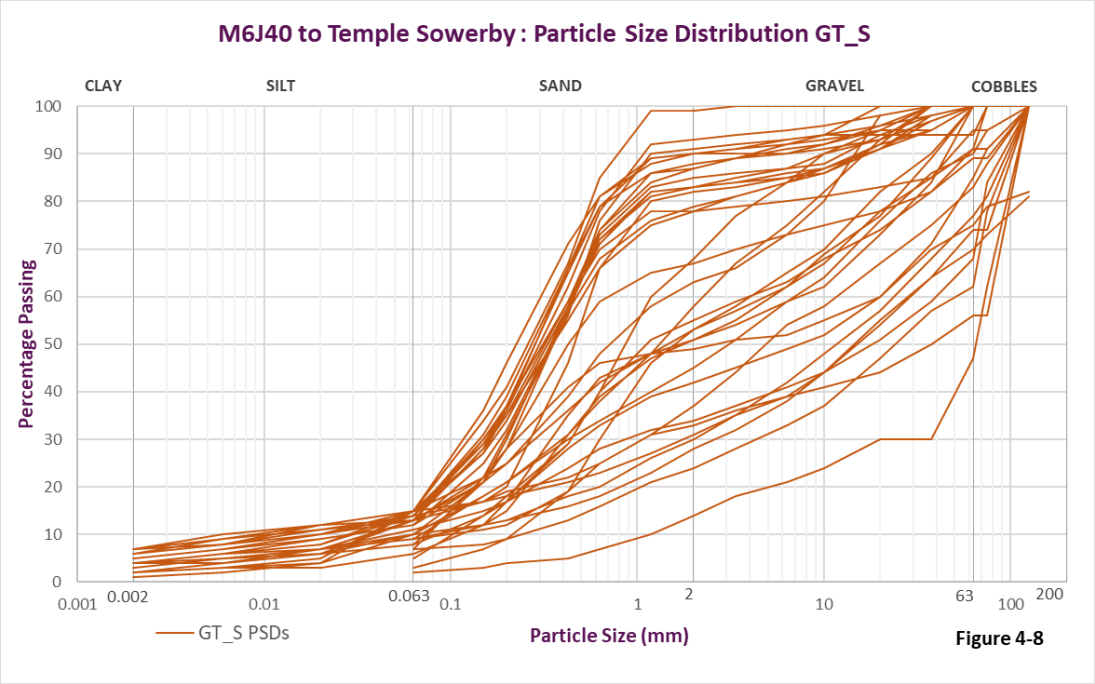

Figure 4-8 : GT_S - Particle Size Distribution Plots

4.4.58 Standard Penetration Tests were undertaken in boreholes for the GT_S unit. The N_{60} results are summarised in Table 4-27 below, split per respective section.

Table 4-27 : GT_S - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results N_{60}
M6J40		
SD M6J40.005a	9.00	43
SD M6J40.005a	10.50	52
KBR		
BH KBR006	6.00	60
BH KBR006	7.00	60
BH KBR006	8.00	60
BH KBR011	1.20	12
SD KBR007	4.50	74
SD KBR007	6.00	74

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results N_{60}
SD KBR008	12.00	74
PTS		
BH PTS001A	1.20	18
BH PTS001A	2.00	18
BH PTS003	3.00	57
BH PTS003	4.00	57
BH PTS005	1.20	23
BH PTS005	2.00	8
BH PTS005	3.00	27
BH PTS005	4.50	17
BH PTS005	5.00	46
BH PTS006	1.20	37
BH PTS006	2.00	60
BH PTS009	1.20	60
BH PTS010	3.00	60
BH PTS010	4.00	60
BH PTS014	2.00	18
BH PTS014	3.00	18
BH PTS014	4.00	60
BH PTS018	4.00	60
BH PTS018	5.00	52
BH PTS018	6.00	43
BH PTS021	3.00	23
BH PTS021	4.00	44
BH PTS021	5.00	44
BH PTS022	1.20	7
BH PTS022	3.00	20
WS PTS016	1.20	36
WS PTS016	2.00	23
WS PTS016	3.00	35
WS PTS016	3.25	63
WS PTS016A	4.00	58
WS PTS016A	4.60	63

Notes:
1. mbegl – metres below existing ground level

4.4.59 The N_{60} results detailed above are presented graphically in Figure 4-9 exhibiting a wide spread of results. The spread does indicate an expected increase with depth. The wide spread of results may be indicative of the granular nature of the GT_S and the presence of minor cobble obstructions, impeding penetration of the SPT cone.

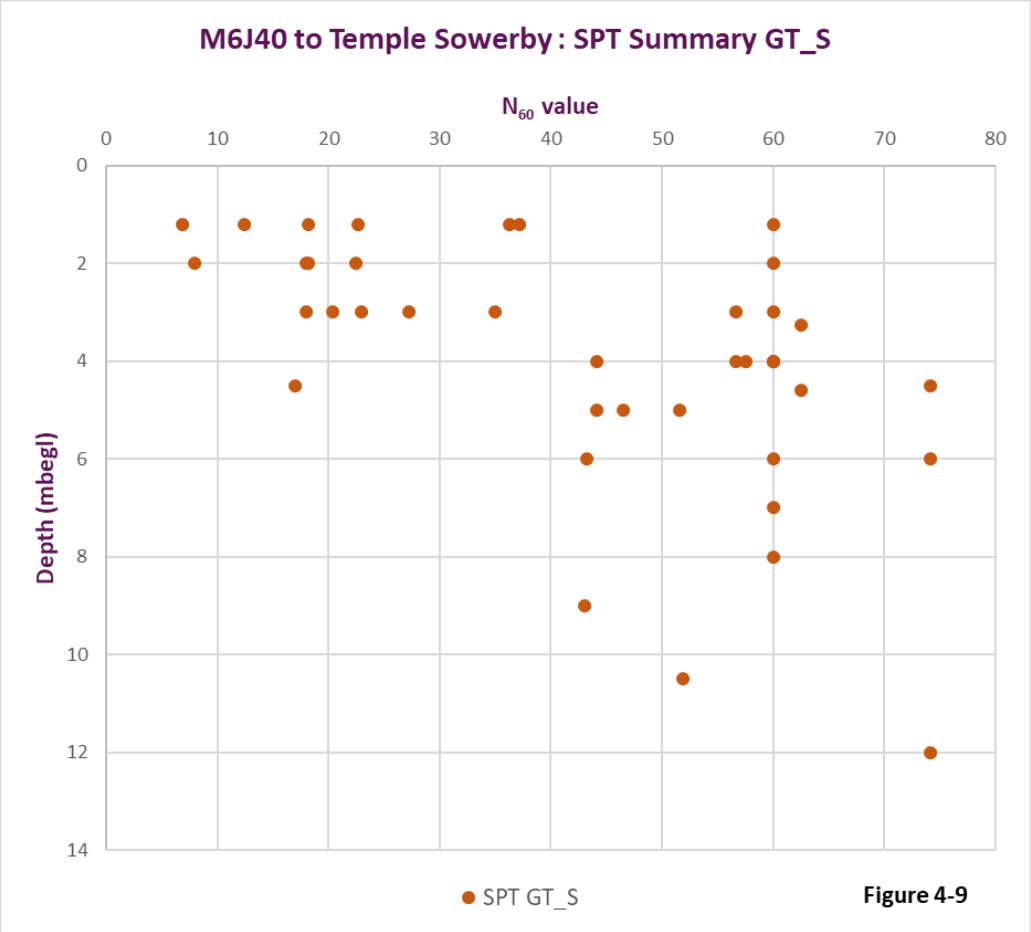

Figure 4-9 : GT_S - SPT, N_{60} versus Depth

4.4.60 The GT_S material is a likely candidate for future re-use in earthworks, being free-draining and readily compacted. Compaction testing was undertaken of the material and a relationship between dry density and moisture content was determined for those samples. The graphical relationship can be found in the 2021 GI Factual Report. Table 4-28 provides the maximum dry-density achieved for a given sample and the corresponding water content. Samples from the M6J40 section were not tested. Consideration to further testing shall be scheduled as part of the second phase of ground investigation to include both the 2.5kg Standard Proctor and the heavier 4.5kg Modified Proctor to assess variation in MDD/OMC with compactive effort.

Table 4-28 : GT_S – Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Test type	Maximum Dry Density (Mg/m³)	Moisture Content at Maximum Dry Density (%)
KBR				
BH KBR011	0.80	2.5kg	1.98	13.00
PTS				
BH PTS006	1.20	2.5kg	2.11	6.90
BH PTS013	0.60	2.5kg	1.94	10.00
BH PTS021	3.00	2.5kg	1.97	8.50
BH PTS022	1.20	2.5kg	1.98	11.00
TP PTS005	0.80	2.5kg	2.04	11.00
TP PTS008	1.70	2.5kg	2.03	10.00
TP PTS010	0.40	2.5kg	1.99	11.00
TP PTS021	0.50	2.5kg	1.84	13.00
RANGE	**0.40 – 1.70**		**1.84 – 2.11**	**6.90 – 13.00**

Notes:
1. mbegl – metres below existing ground level

4.4.61 The compaction data present in the table above has been summarised below graphically.

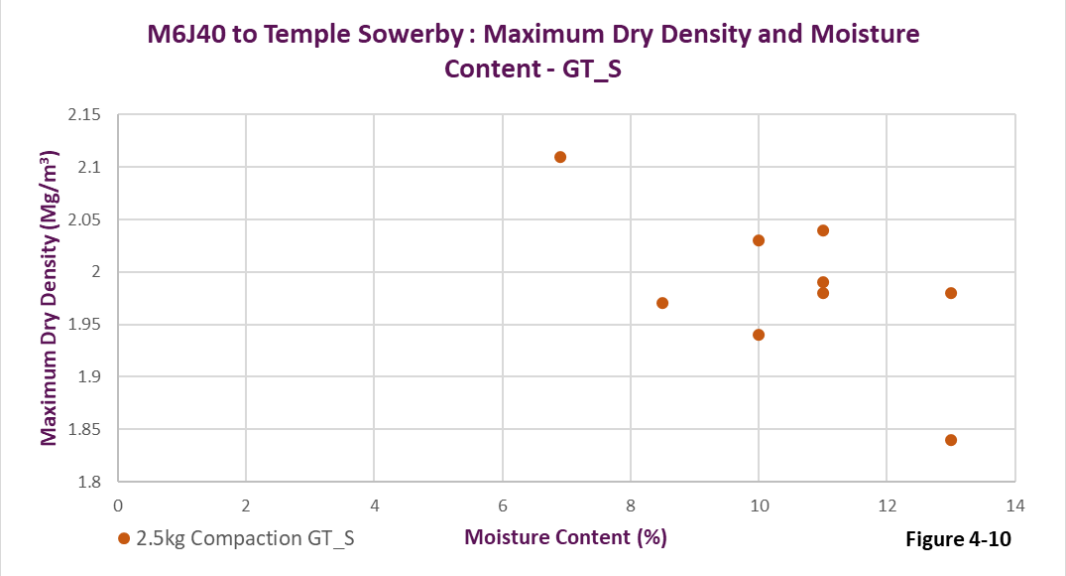

Figure 4-10 : GT_S - Maximum Dry Density and Optimum Moisture Content Range

4.4.62 In addition to the compaction testing undertaken above, Moisture Condition Value (MCV) tests were undertaken. The results are summarised in Table 4-29.

Table 4-29 : GT_S - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%) Note 3	MCV (Value) Note 2
KBR				
BH KBR011	1.20	Single	14.00	3.70
SD KBR007	4.70	Single	6.30	14.40
SD KBR007	4.70	Single	6.30	14.40
PTS				
BH PTS006	1.20	Single	4.10	7.70
BH PTS010	3.00	Single	13.00	4.60
BH PTS022	2.00	Single	15.00	0.00

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%) Note 3	MCV (Value) Note 2
BH PTS022	3.00	Calibration	12.00	2.70
BH PTS022	3.00	Calibration	10.50	7.10
BH PTS022	3.00	Calibration	9.00	9.80
BH PTS022	3.00	Calibration	7.60	11.90
BH PTS022	3.00	Calibration	9.70	8.40
TP PTS005	2.50	Single	12.00	0.00
TP PTS007	0.30	Single	12.00	9.00
TP PTS007	1.50	Single	7.40	11.00
TP PTS010	0.40	Single	13.00	5.10
TP PTS015	1.20	Single	7.90	3.20
RANGE	**0.40 – 4.70**	**-**	**4.10 – 14.00**	**0.00 – 14.40**

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. The moisture content reported for single MCV results is the natural moisture content.

4.4.63 Figure 4-11 presents the MCV results graphically against moisture content, showing the range of potential MCV values and corresponding moisture contents. The individual results from each calibration test are also shown, rather than each calibration line. The calibration lines can be viewed in the 2021 GI Factual Report (8). The calibration test results used a range of moisture contents inclusive of the natural moisture content where possible. Noted within some of the single point MCV tests the MCV result is zero, indicating the moisture content was too wet to test effectively.

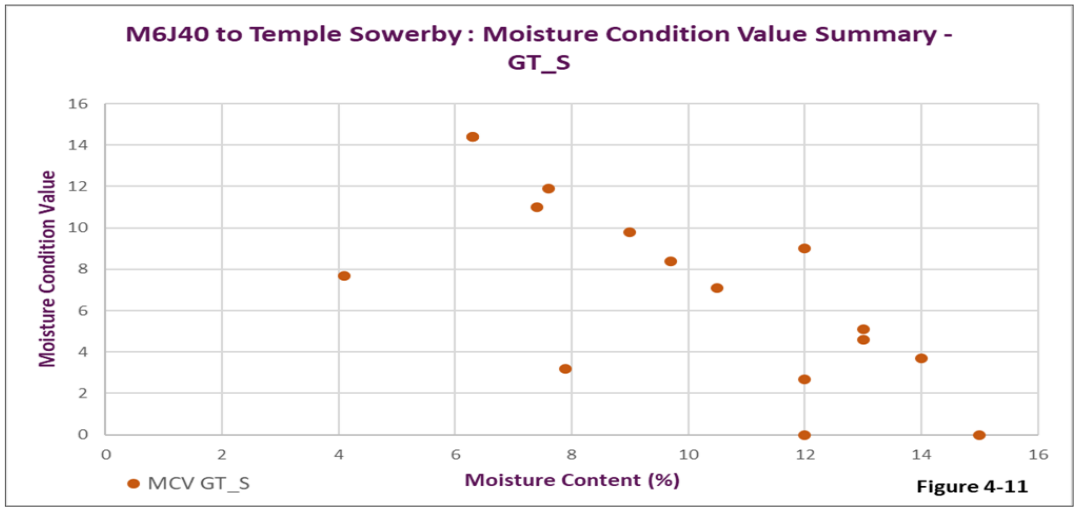

Figure 4-11 : GT_S - Moisture Condition Value and Moisture Content Relationship

4.4.64 Plate bearing tests were undertaken in this unit to determine modulus of subgrade reaction directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Tests were undertaken in trial pits in several locations, at depths between ground level and 0.50m below existing ground level. For the GT_S unit, these test results are given in Table 4-30.

Table 4-30 : GT_S – Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Modulus of Subgrade Reaction K_{762} (MPa)	Equivalent CBR (%)
M6J40 – no results			
KBR			
TP KBR007	0.50	125.30	42.00
PTS			
TP PTS008	0.45	86.50	22.00
TP PTS009	0.50	109.20	33.00
TP PTS012	0.60	55.80	10.00
TP PTS014	0.45	82.00	20.00
TP PTS015	0.50	72.40	16.00
TP PTS016	0.50	101.60	29.00
TP PTS017	0.45	76.00	18.00
TP PTS019	0.45	71.90	16.00
TP PTS020	0.50	81.00	20.00
TP PTS021	0.50	111.20	34.00
TP PTS022	0.45	73.40	17.00
RANGE	**0.45 – 0.60**	**55.80 – 125.30**	**16.00 – 42.00**

Notes:
1. mbegl – metres below existing ground level

4.4.65 In situ plate bearing tests, determined an equivalent CBR indirectly by relationship with stiffness. In addition to these, unsoaked laboratory CBR tests were undertaken. For the GT_S unit, the results of the tests are given in Table 4-31.

Table 4-31 : GT_S – Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content Top (%)	CBR Top (%)	Moisture Content Bottom (%)	CBR Bottom (%)
TP PTS005	2.50	14.00	11.00	11.00	14.00
TP PTS008	1.70	11.00	9.60	10.00	11.00

Notes:
1. mbegl – metres below existing ground level.

4.4.66 In addition to the plate bearing tests reported above, subgrade surface stiffness modulus was determined using lightweight deflectometer (section 3.4). The result is presented in Table 4-32.

Table 4-32 : GT_S – Lightweight Deflectometer Results

Exploratory Holes	Instructed Test Depth Range (mbegl) Note 1	Subgrade Surface Stiffness Modulus, E_{min} / E_{max}/$E_{average}$ (MPa) Note 2
TP M6J40.004	0.50	10 / 31 / 19
RANGE	-	-

Notes:
1. mbegl metres below existing ground level
2. E_{min} and E_{max} and $E_{average}$ determined from between 6 and 10 individual readings per test. First 3no readings ignored as seating

4.4.67 Strength of granular materials has been directly determined by shearbox testing. These tests determine the peak and residual effective angles of internal friction (phi') and any associated apparent cohesion (c'). By definition, shearbox testing assumes full drainage (dissipation of

pore pressures) during shearing and consequently, effective strength parameters are determined (phi' and c'). For the GT_S unit, Table 4-33 presents the testing undertaken and the strength parameters determined in each test.

Table 4-33 : GT_S – Laboratory Shearbox Testing Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Shear Strength Parameters Note 2	
		c' (kPa)	Phi' (degrees)
M6J40			
SD M6J40.005a	9.10	23	36.5
KBR			
BH KBR011	1.20	15	37.5
TP KBR005	1.70	4	35.0
PTS			
BH PTS001A	1.20	3	50.0
BH PTS003	4.00	11	38.0
BH PTS005	3.00	4	37.5
BH PTS006	0.30	0	35.5
BH PTS014	2.00	15	40.0
BH PTS018	4.00	3	40.0
BH PTS021	4.00	0	38.0
BH PTS022	2.00	0	42.0
TP PTS005	1.50	6	33.0
TP PTS007	1.50	0	34.5
TP PTS008	0.60	0	35.0
TP PTS009	1.40	0	36.5
TP PTS015	1.20	12	30.0
TP PTS017	1.20	12	42.5
WS PTS016	1.20	2	33.0
Range	**0.30 – 9.10**	**0 – 23**	**30 – 50**

Notes:
1. mbegl – metres below existing ground level
2. c' and phi' are complementary elements of the shear strength. However, c' can be an artefact of testing and is often ignored, so that the shear strength range is for the angle of shearing resistance phi' only. This range is reported here.

4.4.68 For the GT_S unit, the variation of effective angle of internal friction with depth is shown in Figure 4-12 below. With regard to the apparent effective cohesion, this can often be associated with testing limitations and is generally ignored being associated with negative pore pressures generated by dilation during shearing. However, on some occasions it is feasible that the material in situ is very dense and cemented, possessing an element of apparent cohesion, but this is unlikely in a re-moulded specimen. Consequently, the c' values in the above table cannot be relied upon and are discounted for long term design.

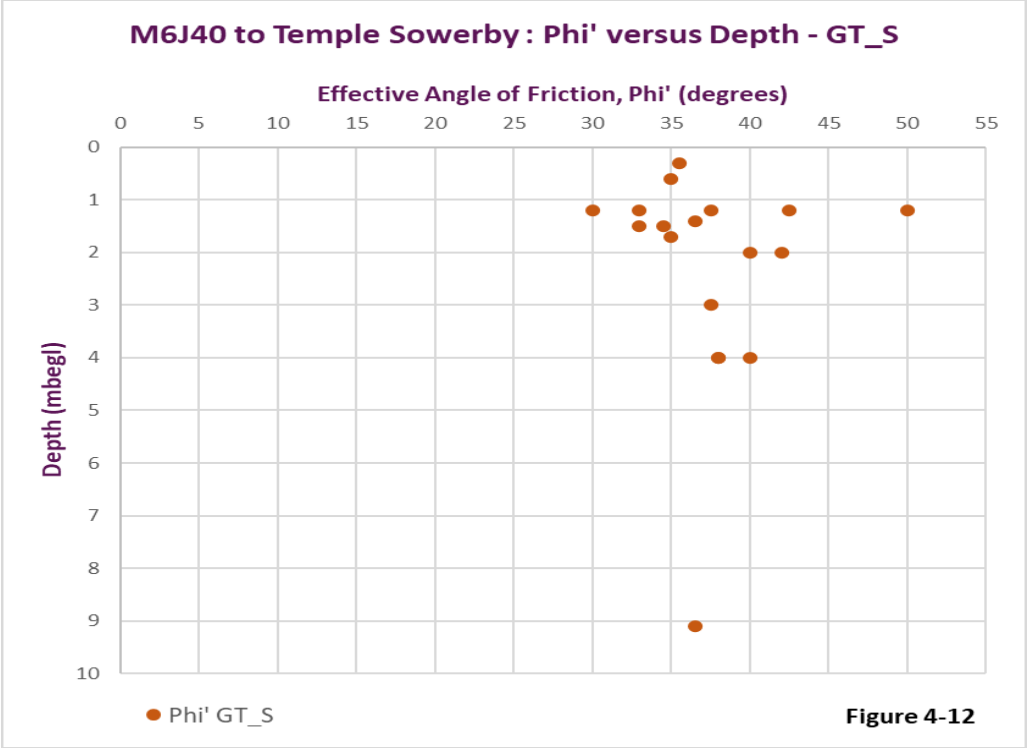

Figure 4-12 : GT_S – Variation of Angle of Internal Friction with Depth

4.4.69 Samples of soil were tested to determine aqueous extract sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (30). The pH and sulfate values for the GT_S unit are given in Table 4-34. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10.00mg/l. Results were only obtained for PTS section. Further chemical testing shall be programmed during the next phase of ground investigation, particularly at the location of structures and where areas of buried concrete are expected.

Table 4-34 : GT_S – pH and Sulfate Concentrations

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l)
PTS			
TP PTS016	0.60	6.30	10.00
BH PTS022	1.20	6.80	10.00
BH PTS014	1.00	6.90	11.00
BH PTS009	1.20	7.20	10.00
BH PTS009	1.20	7.20	10.00
BH PTS005	2.00	8.30	10.00
TP PTS007	1.50	8.30	10.00
TP PTS009	1.50	8.30	10.00
M6J40 and KBR – No results			
RANGE	**0.60 – 1.50**	**6.3 – 6.8**	**10.0 – 11.0**
Notes:			

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l)
1. mbegl – metres below existing ground level.			

4.4.70 Testing for Organic Matter was undertaken on selected samples pertaining to the Penrith to Temple Sowerby scheme section at three sample locations. The results are presented in Table 4-35.

Table 4-35 : GT_S - Organic Matter Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Organic Matter (%w/w)
TP PTS010	0.50	0.30
TP PTS007	0.50	0.70
TP PTS009	0.50	0.90
RANGE	**-**	**0.30 – 0.90**
Notes: 1. mbegl – metres below existing ground level.		

Test Results – FL_GT (Fluvioglacial Till)

4.4.71 The FL_GT unit is predominantly a granular fluvio-glacial deposit material comprising, sands, gravels, cobbles and boulders. The fine material tends to have been washed out during deposition by glacial meltwater, although up to 10% fine material may still be present. Table 4-36 presents summary of where this deposit was identified during the ground investigation and provides a range of typical engineering descriptions of this unit.

Table 4-36 : FL_GT - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Medium dense greyish brown very sandy slightly clayey angular to subrounded fine to coarse GRAVEL of mixed lithologies including mudstone and basalt with medium cobble content and low boulder content. Sand is fine to coarse. Cobbles and boulders are subangular to subrounded of mixed lithologies including basalt. Greyish brown clayey slightly sandy subangular to rounded fine to coarse GRAVEL of mixed lithologies including sandstone with low cobble content. Sand is fine to coarse. Cobbles are subangular to subrounded of sandstone. Reddish/pinkish brown slightly clayey sandy GRAVEL with medium cobble content. Sand is medium to coarse. Gravel is angular to subangular fine to coarse of mixed lithologies predominantly sandstone. Cobbles are subangular to subrounded of sandstone. Dense brown clayey gravelly fine to coarse SAND with low cobble content. Gravel is subangular to subrounded fine to coarse of mixed lithologies including andesite. Cobbles are subrounded of mixed lithologies including andesite.
SD M6J40.005a, BH KBR002, BH KBR003, BH KBR007, BH KBR008, BH KBR011, BH KBR012, SD KBR005, SD KBR007, SD KBR008, BH PTS001A, BH PTS002, BH PTS003, BH PTS006, BH PTS008, BH PTS009, BH PTS023	0.30 – 25.67	
Trial Pits		
TP KBR003, TP KBR007, TP PTS001A, TP PTS003, TP PTS005, TP PTS006, TP PTS007, TP PTS009, TP PTS010	0.25 – 3.50	

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
		Zone of Core Loss (ZCL) - SAND and medium to coarse GRAVEL with cobbles, boulders, sand, and grit. (Driller's description - no recovery)

Notes:
1. mbegl – metres below existing ground level.

4.4.72 The typical descriptions of the FL_GT unit are recorded predominantly as a Gravel horizon with varying proportions of sand and minor constituents of clay and cobbles. Locally horizons of Sand were recorded, but appear to be mainly associated with zones of core loss associated with drilling technique and prescribed a driller's description only. The presence of Sand horizons within this unit cannot be discounted.

4.4.73 Particle size distribution (PSD) tests were undertaken on a selection of the recovered samples and are present graphically below (Figure 4-13). The PSD curve plots closely follow the typical descriptions detailed in Table 4-36 above.

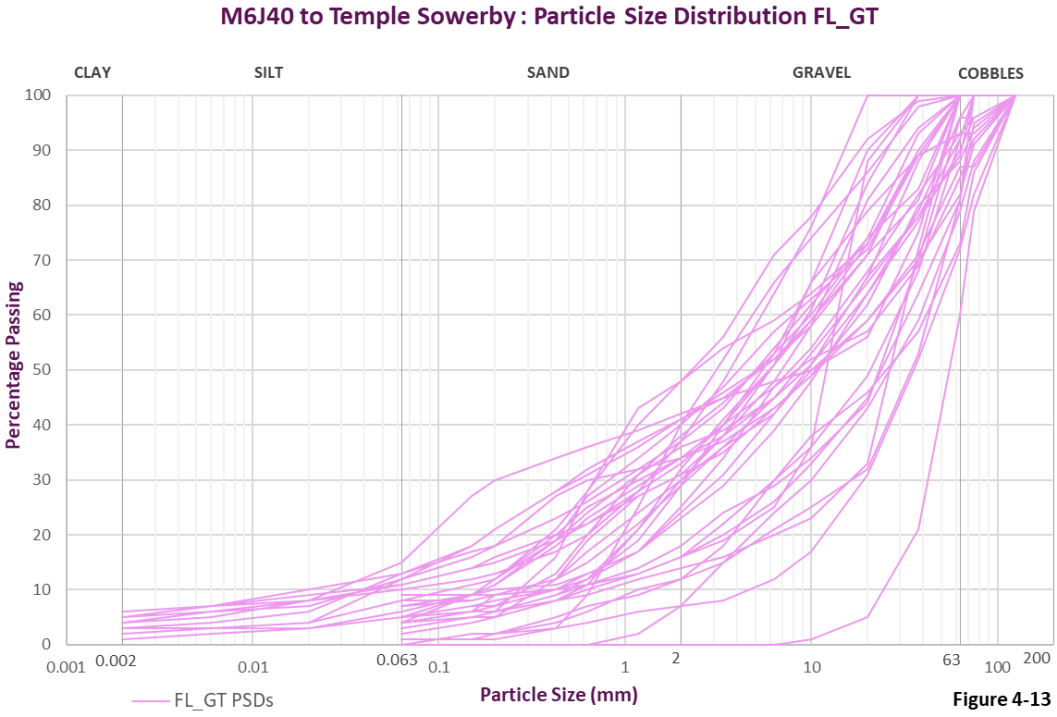

Figure 4-13 : FL_GT - Particle Size Distribution Plots

4.4.74 Standard Penetration Tests were undertaken in boreholes for the FL_GT unit. The N_{60} results are summarised in Table 4-37, split per respective section.

Table 4-37 : FL_GT - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results N_{60}
M6J40		
SD M6J40.005a	12.00	49
SD M6J40.005a	13.50	59
SD M6J40.005a	15.00	74
SD M6J40.005a	16.50	74
KBR		
BH KBR002	1.20	18
BH KBR002	2.00	18
BH KBR002	3.00	20
BH KBR002	6.00	60
BH KBR007	3.00	24
BH KBR007	4.00	37
BH KBR007	5.00	60
BH KBR007	6.00	41
BH KBR008	3.00	60
BH KBR008	5.00	60
BH KBR012	1.20	20
BH KBR012	3.00	52
BH KBR012	4.00	52
BH KBR012	5.00	52
BH KBR012	6.00	52
BH KBR012	7.50	52
BH KBR012	9.00	52
SD KBR005	3.00	4
SD KBR005	9.00	74
SD KBR005	10.50	74
SD KBR005	13.50	74
SD KBR005	15.00	74
SD KBR005	18.00	74
SD KBR005	24.00	74
SD KBR007	7.50	74
SD KBR007	9.00	74
SD KBR007	10.50	74
SD KBR007	13.50	74
SD KBR007	15.00	74
SD KBR007	16.50	74
SD KBR007	18.00	74
SD KBR007	19.50	74
SD KBR007	21.00	74
SD KBR008	1.50	74
SD KBR008	3.00	74
SD KBR008	4.50	74
SD KBR008	6.00	74
SD KBR008	7.50	74
SD KBR008	9.00	74
SD KBR008	13.50	74
SD KBR008	15.00	74
SD KBR008	16.50	74
SD KBR008	18.00	74
SD KBR008	19.50	74
SD KBR008	21.00	74
SD KBR008	22.50	74
SD KBR008	24.00	74
SD KBR008	25.50	74
PTS		
BH PTS002	9.50	57
BH PTS003	8.00	57
BH PTS003	9.00	57
BH PTS006	3.00	60
BH PTS006	4.00	60
BH PTS006	5.00	60
BH PTS006	6.00	60

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results N_{60}
BH PTS006	7.00	60
BH PTS006	8.00	29
BH PTS007	2.00	13
BH PTS007	3.00	25
BH PTS008	4.00	22
BH PTS008	5.00	47
BH PTS009	2.00	60
BH PTS009	3.00	60
BH PTS009	4.00	59

Notes:
1. mbegl – metres below existing ground level

4.4.75 The N_{60} results detailed above are presented graphically below exhibiting a wide spread of results. A large portion of the tests did reach refusal, reporting the maximum 50 blows over the test depth range. The refusal may be a result of the relative density of the deposit or encountering obstructions such as cobbles resisting progress of the split spoon or cone. The spread does indicate an expected increase in relative density with depth. Below approximately 15m begl the test results met refusal, which may be a symptom of the above reasonings.

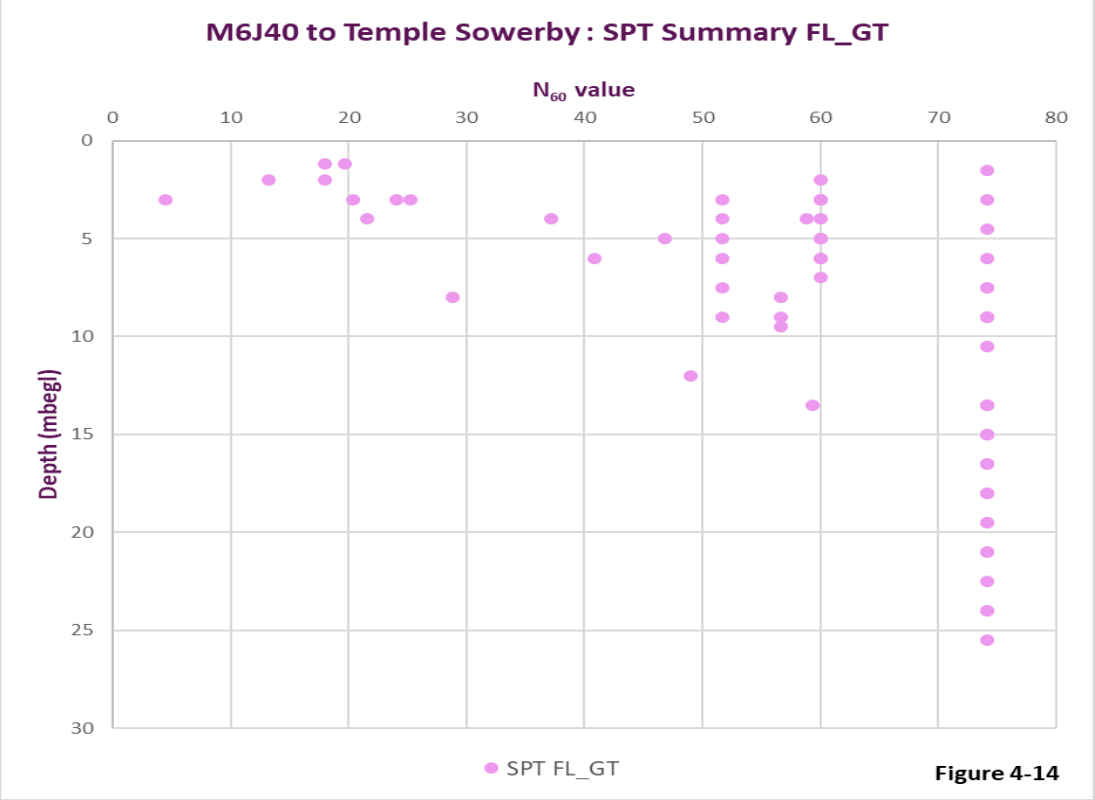

Figure 4-14 : FL_GT – SPT, N_{60} versus Depth

4.4.76 The FL_GT unit is a likely candidate for future re-use in earthworks, being free-draining and readily compacted. Compaction testing was undertaken on the material and a relationship between dry density and moisture content was determined for those samples. A 2.5kg rammer

was consistently used for each test. The graphical relationship can be found in the 2021 GI Factual Report. The table below provides the maximum dry-density achieved for a given sample and the corresponding water content.

Table 4-38 : FL_GT – Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Optimum Moisture Content (%)
KBR			
SD KBR005	7.65	2.13	7.50
SD KBR007	7.80	2.08	11.00
SD KBR007	9.20	2.12	7.50
SD KBR007	13.50	2.18	8.00
SD KBR008	1.55	2.17	9.00
TP KBR003	0.80	1.99	13.00
TP KBR007	0.80	2.11	10.00
TP KBR007	3.00	2.12	9.30
PTS			
BH PTS006	4.00	1.99	6.30
TP PTS005	0.25	2.01	11.00
TP PTS007	0.75	2.14	8.00
TP PTS009	3.00	2.14	6.30
TP PTS010	1.35	2.11	7.00
RANGE	**0.25 – 13.50**	**1.99 – 2.18**	**6.30 – 11.00**

Notes:
1. mbegl – metres below existing ground level

The compaction data present in the table above has been summarised below graphically.

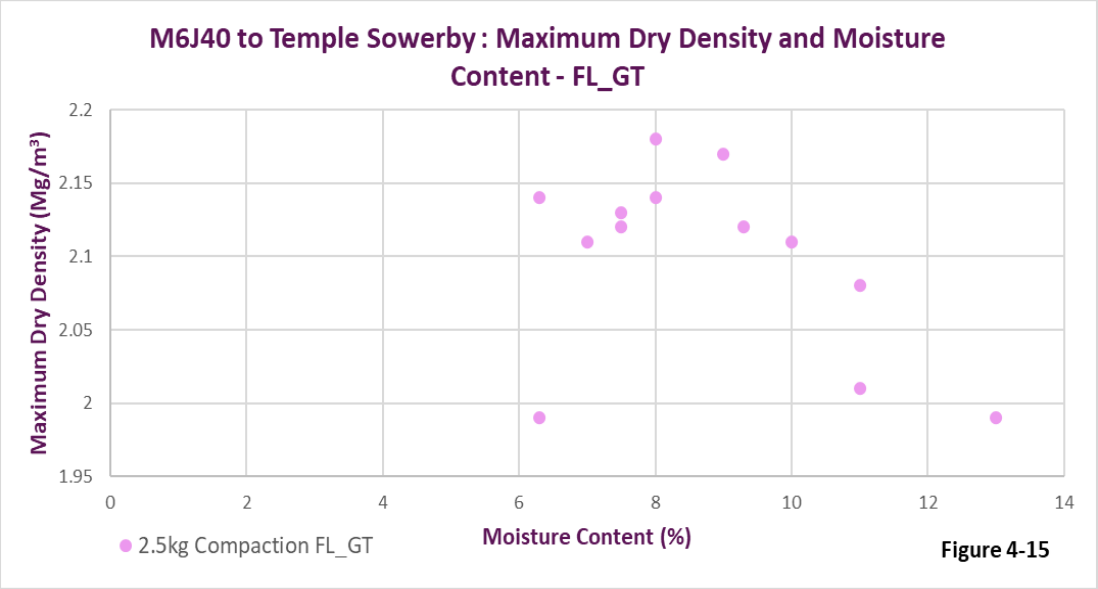

Figure 4-15 : FL_GT - Maximum Dry Density and Optimum Moisture Content Relationship

4.4.77 In addition to the compaction testing undertaken above, Moisture Condition Value (MCV) tests were undertaken on samples of FL_GT. The results are summarised in Table 4-39. A singular MCV result has reported a zero value, indicating that the moisture content is out with the workable range.

Table 4-39 : FL_GT - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%) Note 3	MCV (Value) Note 2
M6J40 – No results				
KBR				
BH KBR002	1.20	Single	11.00	5.20
BH KBR008	4.00	Single	4.10	9.40
SD KBR005	8.10	Calibration	7.30	13.10
SD KBR005	8.10	Calibration	10.40	5.00
SD KBR005	8.10	Calibration	11.20	4.30
SD KBR005	8.10	Calibration	8.40	12.10
SD KBR005	10.05	Calibration	9.60	5.20
SD KBR005	10.05	Calibration	8.70	8.30
SD KBR005	10.05	Calibration	8.20	10.30
SD KBR005	10.05	Calibration	7.40	12.10
SD KBR007	8.50	Single	11.00	12.10
SD KBR007	12.35	Single	8.50	9.50
TP KBR003	0.80	Single	10.00	12.50
TP KBR003	1.20	Calibration	9.20	11.00
TP KBR003	1.20	Calibration	8.30	14.20
TP KBR003	1.20	Calibration	10.30	10.20
TP KBR003	1.20	Calibration	11.70	7.20
TP KBR007	2.00	Single	7.80	12.40
PTS				
BH PTS006	6.00	Single	2.10	0.00
TP PTS006	0.85	Single	8.90	13.50
RANGE	**0.80 – 12.35**	**-**	**2.10 – 11.70**	**0.00 – 14.20**

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. The moisture reported on the single point MCV results is the natural moisture content for that sample.

4.4.78 The MCV results are presented in Figure 4-16 below.

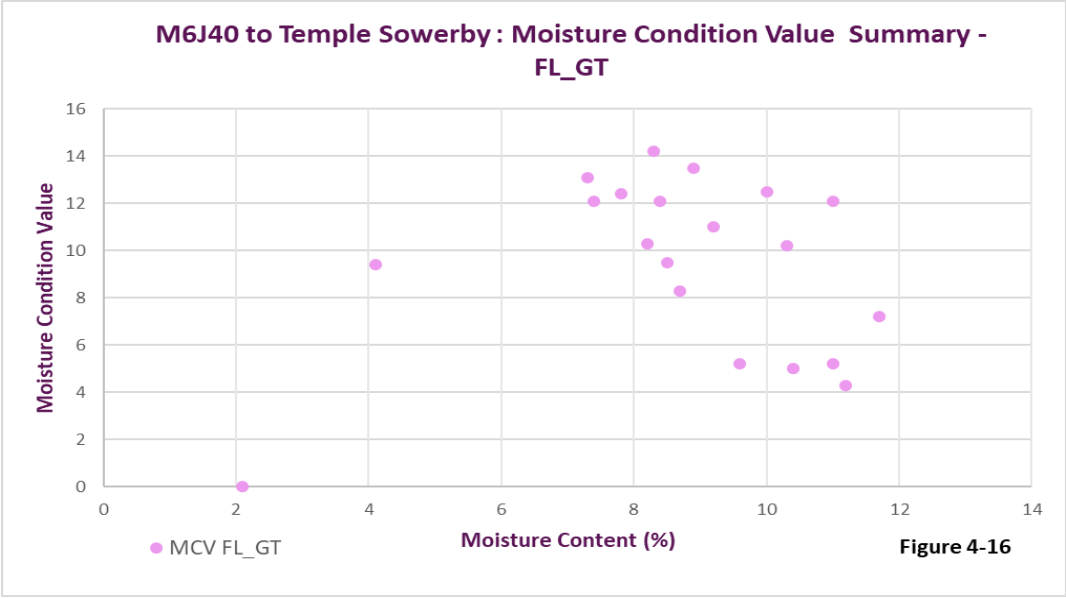

Figure 4-16 : FL_GT - Moisture Condition Value and Moisture Content Relationship

4.4.79 Laboratory CBR tests were undertaken on selected samples taken from the FL_GT unit at approximately 0.50m below proposed formation level for the design alignment at time of writing this report. The results of the tests are summarised in Table 4-40.

Table 4-40 : FL_GT – Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content Top (%)	CBR Top (%)	Moisture Content Bottom (%)	CBR Bottom (%)
BH KBR007	2.50	8.30	49.00	8.80	73.00
BH KBR007	4.00	7.70	17.00	8.10	37.00
BH KBR008	4.00	3.80	25.00	3.60	35.00
SD KBR005	10.05	7.10	27.00	7.00	26.00
SD KBR008	4.75	6.80	30.00	6.70	45.00
SD KBR008	8.40	7.00	24.00	6.80	17.00
TP KBR007	2.00	8.10	22.00	8.30	17.00
TP PTS007	0.75	6.30	19.00	6.00	33.00
TP PTS009	3.00	7.70	27.00	7.80	45.00

Notes:
1. mbegl – metres below existing ground level.

4.4.80 A single plate bearing test was undertaken in this unit to determine modulus of subgrade reaction directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Tests were undertaken in trial pits in several locations, at depths between ground level and 0.5m below existing ground level. For the FL_GT unit, these test results are given in Table 4-41.

Table 4-41 : FL_GT – Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Modulus of Subgrade Reaction K_{762} (MPa/m)	Equivalent CBR (%)
PTS			
TP PTS005	0.50	127.30	43.00
RANGE	-	-	-

4.4.81 A single unconsolidated undrained triaxial test was performed on a remoulded sample of the FL_GT unit; however, this material is considered as a free draining granular material and consider this test to be unrepresentative. The result is not reported further in this document.

4.4.82 Strength of granular materials has been directly determined by shearbox testing. These tests determine the peak and residual effective angles of internal friction (phi') and any associated apparent cohesion (c'). By definition, shearbox testing assumes full drainage (dissipation of pore pressures) during shearing and consequently effective strength parameters are determined (phi' and c'). For the FL_GT unit, Table 4-42 shows the testing undertaken and the strength parameters determined in each test.

Table 4-42 : FL_GT – Laboratory Shearbox Testing Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Shear Strength Parameters (c' kPa / phi' degrees) Note 2	
		c' (kPa)	Phi' (degrees)
M6J40			
SD M6J40.005a	11.05	1	37.00
KBR			
BH KBR002	1.20	6	35.00
BH KBR007	3.00	14	31.00
BH KBR012	3.00	1	35.00
BH KBR012	7.50	0	37.00
SD KBR007	6.50	3	36.50
SD KBR007	15.00	0	36.00
SD KBR008	4.00	0	36.00
SD KBR008	13.90	18	36.50
TP KBR003	2.00	0	36.00
TP KBR007	0.80	4	35.00
TP KBR007	3.00	0	37.50
PTS			
BH PTS008	4.00	0	33.00
BH PTS009	2.00	1	39.00
TP PTS001A	1.80	3	37.50
TP PTS003	1.80	0	36.50
RANGE	**0.80 – 13.90**	**0 – 18**	**31.00 – 39.00**

Notes:
1. mbegl – metres below existing ground level
2. c' and phi' are complementary elements of the shear strength. However, c' can be an artefact of testing and is often ignored, so that the shear strength range is for the angle of shearing resistance phi' only. This range is reported here.

4.4.83 For the FL_GT unit, the variation of effective angle of internal friction with depth is shown in Figure 4-17. With regard to the apparent effective cohesion, this can often be associated with testing limitations and is generally ignored being associated with negative pore pressures developed from specimen dilation during shearing. However, on some occasions it is feasible that the material in situ is very dense and cemented, possessing a built in shear resistance or apparent cohesion, but this is unlikely in a re-moulded specimen. Consequently, the c' values in the above table cannot be relied upon and are discounted.

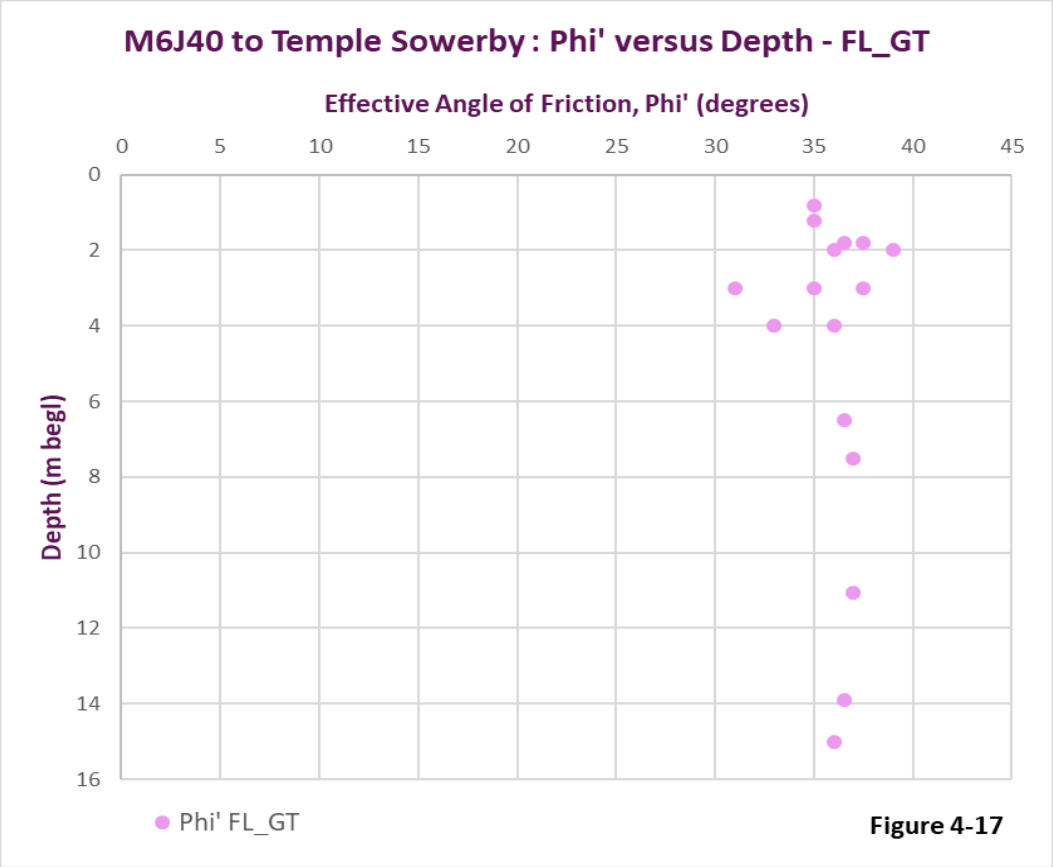

Figure 4-17 : FL_GT – Variation of Angle of Internal Friction with Depth

4.4.84 Samples of soil were tested to determine aqueous extract sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (30). The pH and sulfate values for the FL_GT unit are given in Table 4-43. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10.00mg/l. Results were only obtained for the PTS. Further chemical testing shall be programmed during the next phase of ground investigation, particularly at the location of structures and where areas of buried concrete are expected.

Table 4-43 : FL_GT – pH and Sulfate Concentration - Soil

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l)
KBR			
TP KBR003	1.50	7.10	10.00
SD KBR008	1.55	7.60	11.00
BH KBR007	6.00	7.80	10.00
BH KBR012	5.00	8.00	10.00
SD KBR007	6.40	8.10	10.00
SD KBR008	6.00	8.40	23.00

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l)
M6J40 & PTS– No results			
RANGE	**1.50 – 6.40**	**7.10 – 8.40**	**10.00 – 23.00**
Notes: 1. mbegl – metres below existing ground level.			

4.4.85 Testing of Organic Matter was not undertaken on samples of the FL_GT unit.

Test Results – GT_V (Cohesive Glacial Till – Sandy)

4.4.86 The GT_V unit is a fine grained material with its origin in the lodgement tills. This particular unit exhibits a high proportion of sand in the mixture and the unit is described as clayey SAND or sandy CLAY. Table 4-44 lists the exploratory holes where the GT_V unit was found.

Table 4-44 : GT_V - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Soft low strength light brown slightly gravelly very sandy CLAY with medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse sandstone, siltstone and occasional igneous lithologies. Cobbles are subangular to angular of sandstone, siltstone and occasional igneous lithologies. Reddish brown with localised yellowish mottling slightly gravelly very clayey fine to coarse SAND with low cobble content and low boulder content. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles and boulders are subangular to subrounded of mixed lithologies including sandstone. Firm to stiff dark orangish brown sandy gravelly CLAY with high cobble content. Sand is fine to coarse. Gravel is angular to rounded fine to coarse of sandstone, siltstone, and possible limestone. Cobbles are subangular of sandstone.
BH M6J40.001, BH M6J40.002A-1, BH M6J40.005-2, BH KBR002, BH KBR003, BH KBR005, BH KBR006, BH KBR008, BH KBR009, SD KBR005, SD KBR007, SD KBR008, BH PTS001A, BH PTS002, BH PTS007, BH PTS010, BHPTS011, BH PTS012, BH PTS013, BH PTS014, BH PTS015, BH PTS017, BH PTS018, BH PTS019, BH PTS020, BH PTS021, BH PTS023, WS PTS016A	0.10 – 25.73	
Trial Pits		
TP M6J40.004, TP KBR005, TP KBR006, TP KBR007, TP PTS001A, TP PTS012, TP PTS013, TP PTS014, TP PTS015, TP PTS016, TP PTS017, TP PTS018, TP PTS021, TP PTS022, TP PTS024, TP PTS026	0.20 – 3.50	
Notes: 1. mbegl – metres below existing ground level		

4.4.87 The descriptions for the sandy glacial till (GT_V) in Table 4-44 are typical. Generally described as gravelly clayey SAND or gravelly sandy CLAY, the fine fractions of these soils (clay) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics of the whole soil matrix.

4.4.88 The particle size distributions for this unit are presented below in Figure 4-18. The plots define well the engineering descriptions presented in the corresponding exploratory hole logs.

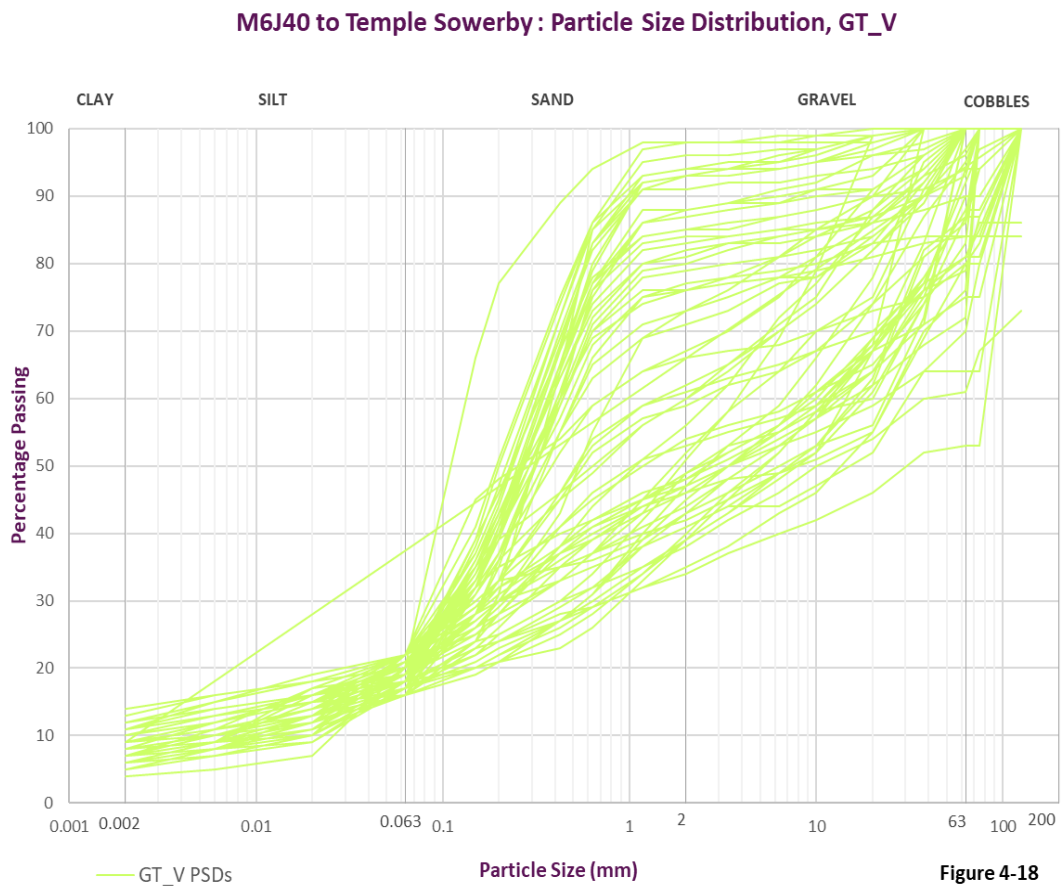

Figure 4-18 : GT_V - Particle Size Distribution Plots

4.4.89 Standard Penetration Tests were undertaken in boreholes for the GT_V unit. The N_{60} results are summarised in the table below, split per respective section.

Table 4-45 : GT_V - Standard Penetration Test Results

Exploratory Holes	Test Depth (mbegl) Note 1	Standard Penetration Test Results N_{60}
M6J40		
BH M6J40.002A-1	1.20	14
BH M6J40.002A-1	2.00	20
BH M6J40.002A-1	3.00	57
BH M6J40.002A-1	4.00	57
BH M6J40.005-2	9.60	52
BH M6J40.005-2	9.90	52
KBR		
BH KBR003	3.30	52
BH KBR003	4.50	52
BH KBR005	1.20	42
BH KBR005	3.00	27
BH KBR005	4.00	57
BH KBR006	1.20	19
BH KBR006	2.00	17
BH KBR006	3.00	18
BH KBR006	4.00	34
BH KBR006	5.00	47

Exploratory Holes	Test Depth (mbegl) Note 1	Standard Penetration Test Results N_{60}
BH KBR008	1.20	19
BH KBR008	2.00	60
BH KBR009	6.50	44
BH KBR009	6.90	44
SD KBR005	4.50	74
SD KBR005	6.00	74
SD KBR005	7.50	74
SD KBR005	21.00	74
SD KBR005	22.50	74
SD KBR005	25.50	74
SD KBR007	1.50	12
SD KBR007	3.00	31
SD KBR007	12.00	74
SD KBR007	22.50	74
SD KBR007	24.00	74
SD KBR007	25.50	74
PTS		
BH PTS001A	4.00	42
BH PTS001A	5.00	57
BH PTS001A	6.50	57
BH PTS002	8.00	57
BH PTS008	1.20	7
BH PTS008	2.00	13
BH PTS011	1.20	23
BH PTS012	1.20	13
BH PTS012	5.00	62
BH PTS012	6.00	60
BH PTS013	1.20	18
BH PTS013	2.00	18
BH PTS013	3.00	60
BH PTS014	1.20	16
BH PTS017	1.20	16
BH PTS017	3.00	35
BH PTS017	4.00	28
BH PTS017	5.00	60
BH PTS018	1.20	11
BH PTS018	2.00	38
BH PTS018	3.00	60
BH PTS019	1.20	12
BH PTS023	2.00	60
WS PTS016A	1.20	19
WS PTS016A	2.00	21
WS PTS016A	3.00	25

Notes:
1. mbegl – metres below existing ground level.

4.4.90 The N_{60} results summarised in Table 4-45 are plotted below against depth showing a general trend, increasing with depth.

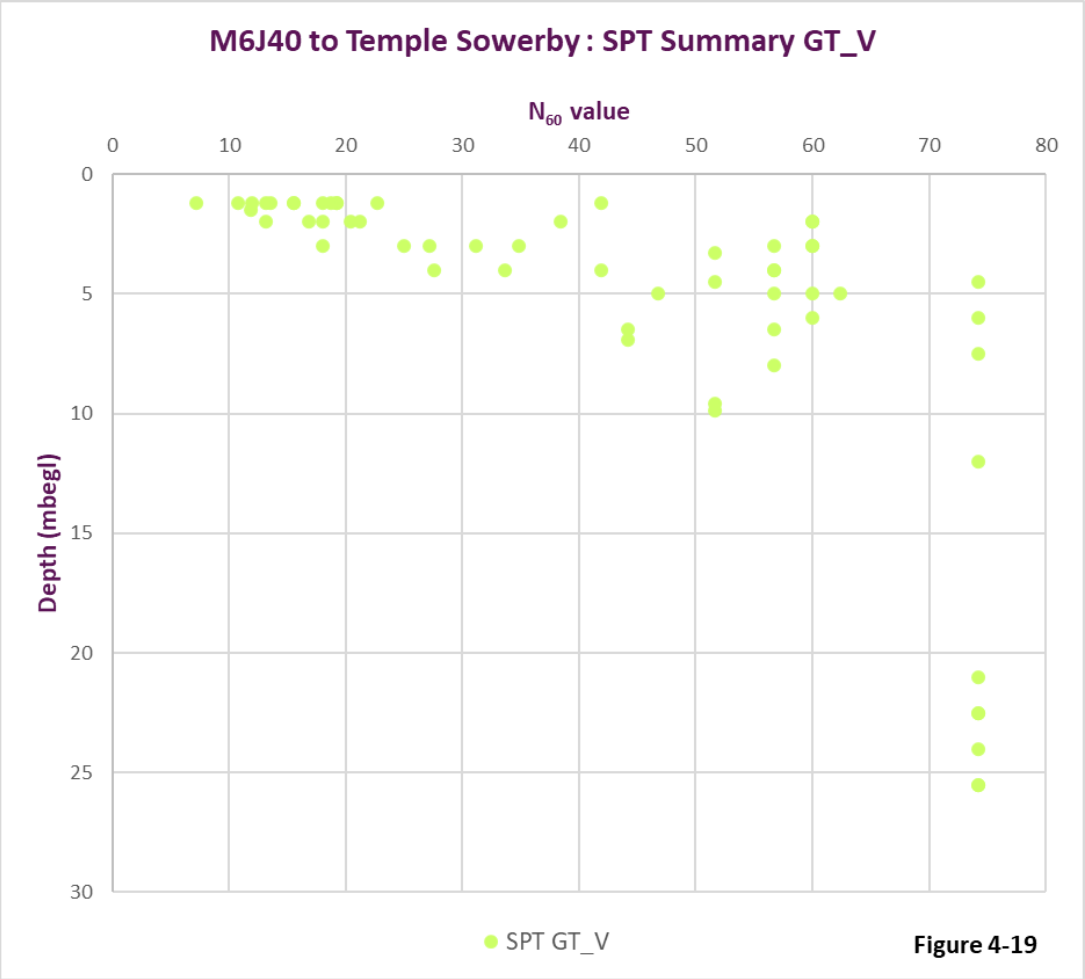

Figure 4-19 : GT_V - SPT, N_{60} versus Depth

4.4.91 Atterberg Limits are used to determine the plasticity index for silt and clay sized fractions. For the fine grained tills, the clay and silt fractions dominate the overall soil matrix behaviour. A plot of plasticity index against liquid limit is used to characterise the fine fraction. In Figure 4-20, it can be seen that the majority of samples classify as clay of low plasticity.

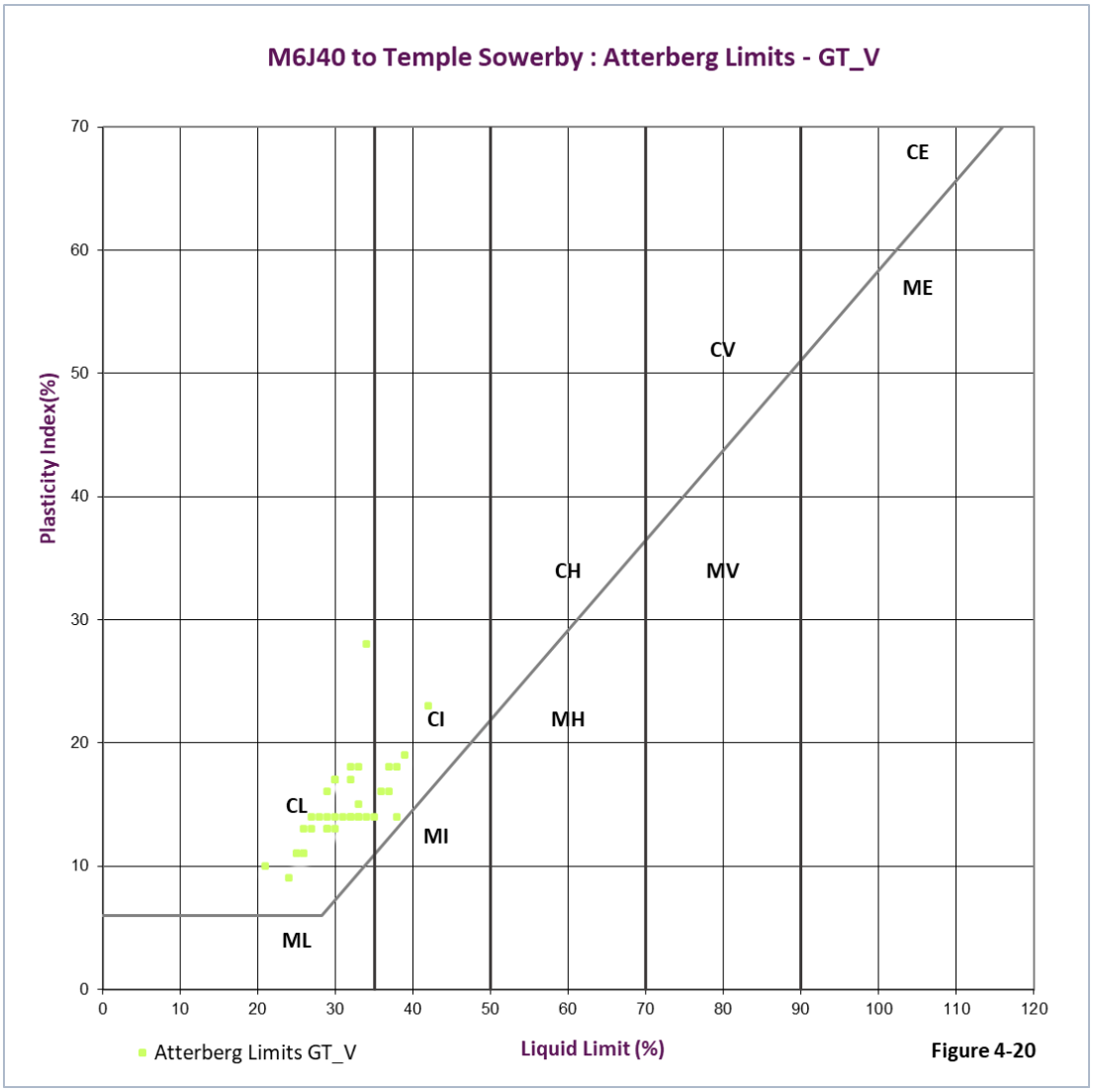

Figure 4-20 : GT_V - Atterberg Limits

4.4.92 The relationship between natural moisture content and the plastic limit moisture content is a determinant of re-usability of excavated fine soil in its natural or 'as-dug' condition. The SHW uses this relationship to classify suitability as fill and generally allows a range of moisture contents around the plastic limit.

4.4.93 In the SHW, the **upper** limit moisture content designating Class 2B **dry** cohesive fills is set at (PL-4%). It follows that any material with a natural as-dug moisture content greater than (PL-4%) will therefore exceed this upper limit and will be designated as Class 2A **wet** cohesive fill.

4.4.94 In Figure 4-21 below, the difference between the natural moisture content and (PL-4%) is shown, in addition to the variation with depth. Positive values on the X-axis (NMC-[PL-4]) denote samples which are naturally wetter than PL-4% (Class 2A), while the reverse applies for negative values. Reference to Figure 4-21 indicates that a higher proportion of the material

will be classified as 2B. The impact on suitability and re-use is discussed in the later earthworks appraisal sections.

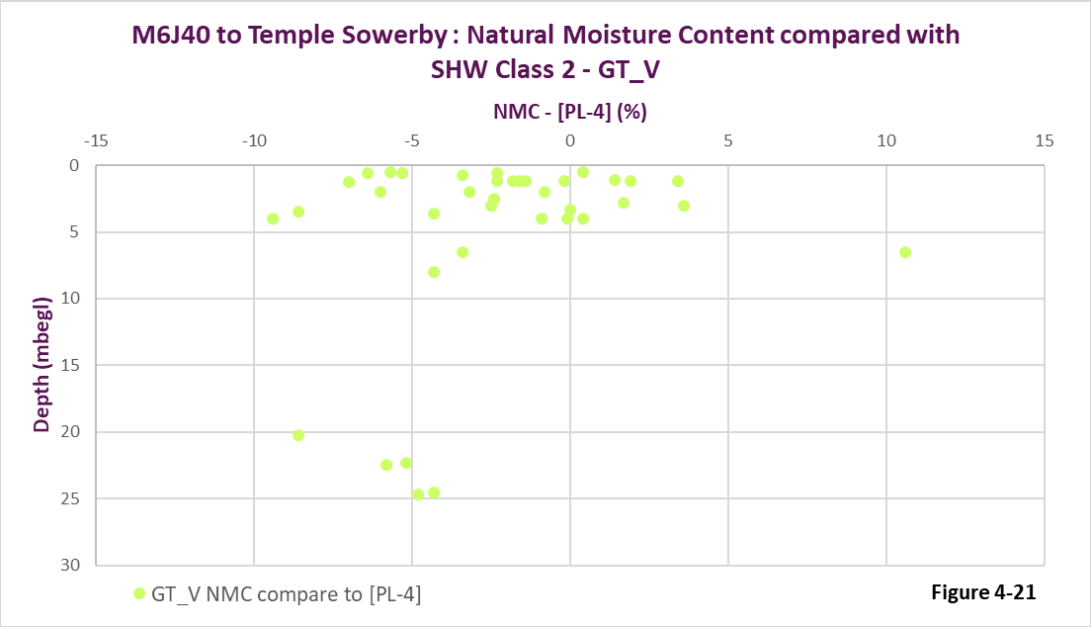

Figure 4-21 : GT_V - Natural Moisture Content and SHW Class 2 Limit versus Depth

4.4.95 The GT_V unit is a likely candidate for future re-use in earthworks. Compaction testing was undertaken on the material and a relationship between dry density and moisture content was determined for those samples. A 2.5kg rammer was used for each test. The graphical relationship can be found in the 2021 GI Factual Report. Table 4-46 below provides the maximum dry density achieved for a given sample and the corresponding water content.

Table 4-46 : GT_V – Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Moisture Content at Maximum Dry Density (%)
M6J40 – No results			
KBR			
BH KBR006	0.60	1.82	14.00
BH KBR006	2.00	2.07	10.00
BH KBR008	1.20	2.05	11.00
SD KBR005	4.30	2.09	10.00
PTS			
BH PTS020	0.30	1.96	12.00
BH PTS021	0.50	2.00	8.30
TP PTS013	0.35	1.98	10.00
TP PTS014	2.00	1.99	8.30
TP PTS016	2.10	1.98	9.00
TP PTS018	1.60	2.02	11.00
TP PTS021	3.20	2.00	8.90
TP PTS026	1.20	2.03	9.30
RANGE	**0.30 – 4.30**	**1.82 – 2.09**	**8.30 – 14.00**

Notes:
1. mbegl – metres below existing ground level.

4.4.96 The compaction data present in Table 4-46 above has been summarised below graphically.

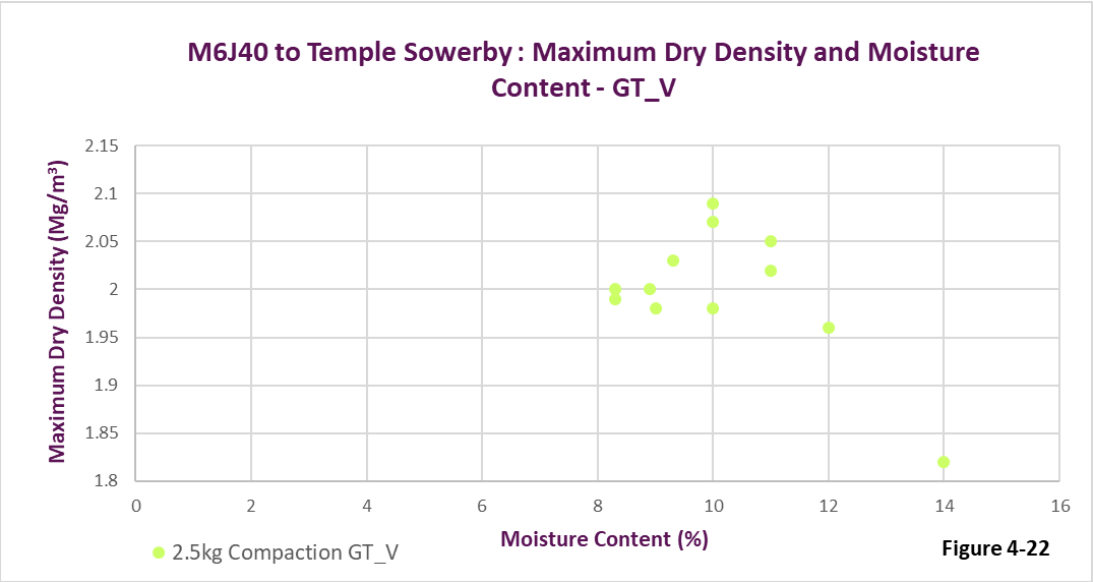

Figure 4-22 : GT_V - Maximum Dry Density and Moisture Content Range

4.4.97 In addition to the compaction testing undertaken above, Moisture Condition Value (MCV) tests were undertaken on samples of GT_V. The results are summarised in Table 4-47 below showing the possible range of MCV values and corresponding moisture contents. The individual results for each calibration test are shown. For individual calibration lines, please refer to the 2021 GI Factual Report (8). The calibration test results used a range of moisture contents, including the natural moisture content where possible.

Table 4-47 : GT_V - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%) Note 3	MCV (Value) Note 2
M6J40 – No results				
KBR				
BH KBR006	0.30	Single	17.00	9.10
BH KBR006	3.00	Single	8.00	12.60
BH KBR006	4.00	Calibration	11.50	5.00
BH KBR006	4.00	Calibration	9.50	10.20
BH KBR006	4.00	Calibration	10.20	8.40
BH KBR006	4.00	Calibration	9.90	7.70
BH KBR006	4.00	Calibration	8.90	11.70
BH KBR003	3.30	Single	11.00	8.00
BH KBR005	1.20	Single	13.00	4.60
BH KBR005	4.00	Calibration	11.90	5.10
BH KBR005	4.00	Calibration	10.30	9.50
BH KBR005	4.00	Calibration	9.30	12.20
BH KBR005	4.00	Calibration	10.10	9.00
BH KBR006	1.20	Calibration	11.30	7.00
BH KBR006	1.20	Calibration	9.90	10.30
BH KBR006	1.20	Calibration	8.30	13.80
BH KBR006	1.20	Calibration	11.90	5.10
BH KBR008	0.60	Calibration	10.50	9.20
BH KBR008	0.60	Calibration	9.40	12.00

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%) Note 3	MCV (Value) Note 2
BH KBR008	0.60	Calibration	11.10	7.20
BH KBR008	0.60	Calibration	13.10	5.30
BH KBR008	0.60	Calibration	10.50	9.20
BH KBR008	0.60	Calibration	9.40	12.00
BH KBR008	0.60	Calibration	11.10	7.20
BH KBR008	0.60	Calibration	13.10	5.30
BH KBR008	1.20	Single	12.00	6.90
SD KBR007	1.65	Calibration	15.70	4.10
SD KBR007	1.65	Calibration	14.80	6.40
SD KBR007	1.65	Calibration	13.70	8.10
SD KBR007	1.65	Calibration	12.90	10.20
SD KBR007	2.15	Single	13.00	8.60
SD KBR007	3.35	Single	9.00	9.70
SD KBR007	12.05	Single	8.60	9.60
TP KBR005	3.20	Single	9.30	9.50
TP KBR007	0.40	Single	11.00	10.30
PTS				
BH PTS001A	6.50	Single	8.20	11.40
BH PTS011	1.20	Single	12.00	5.80
BH PTS012	1.20	Single	13.00	4.20
BH PTS013	1.20	Calibration	14.50	1.70
BH PTS013	1.20	Calibration	13.10	4.40
BH PTS013	1.20	Calibration	11.80	6.20
BH PTS013	1.20	Calibration	10.40	8.80
BH PTS013	1.20	Calibration	12.70	4.30
TP PTS013	0.35	Calibration	11.00	13.90
TP PTS013	0.35	Calibration	12.20	8.50
TP PTS013	0.35	Calibration	12.80	4.70
TP PTS013	0.35	Calibration	12.00	9.20
TP PTS015	0.45	Single	12.00	9.70
TP PTS016	1.10	Single	12.00	6.10
TP PTS018	2.20	Single	11.00	6.20
TP PTS021	2.10	Calibration	12.50	4.60
TP PTS021	2.10	Calibration	11.70	7.10
TP PTS021	2.10	Calibration	10.90	9.20
TP PTS021	2.10	Calibration	11.20	6.10
TP PTS021	3.20	Calibration	11.30	7.50
TP PTS021	3.20	Calibration	12.30	4.70
TP PTS021	3.20	Calibration	11.20	6.80
TP PTS021	3.20	Calibration	10.30	8.90
TP PTS013	0.35	Calibration	11.00	13.90
TP PTS013	0.35	Calibration	12.20	8.50
TP PTS013	0.35	Calibration	12.80	4.70
RANGE	**0.30 – 12.05**	**-**	**8.20 – 17.00**	**1.70 – 13.90**

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. The moisture content reported for the single MCV tests was the natural moisture content.

4.4.98 The MCV results are presented against moisture content in Figure 4-23 below.

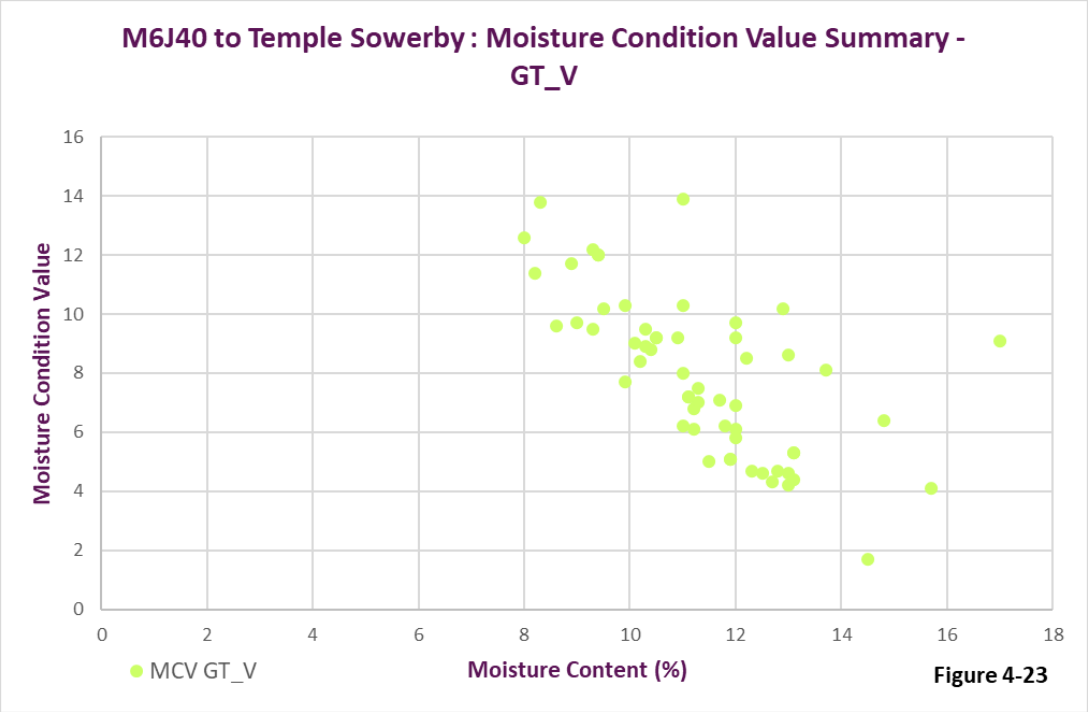

Figure 4-23 : GT_V - Moisture Condition Value and Moisture Content Relationship

4.4.99 Laboratory unsoaked CBR tests were undertaken on select samples taken from the GT_V unit at approximately 0.50m below proposed formation level for the design alignment at time of writing this report. The results of the tests are given in Table 4-48.

Table 4-48 : GT_V - Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content Top (%)	CBR Top (%)	Moisture Content Bottom (%)	CBR Bottom (%)
M6J40					
TP M6J40.004	0.50	15.00	2.00	16.00	1.90
KBR					
BH KBR006	0.30	17.00	7.30	17.00	10.00
BH KBR006	3.00	9.30	26.00	8.90	34.00
BH KBR005	3.00	14.00	1.10	13.00	1.60
SD KBR005	6.00	7.10	24.00	6.80	11.00
SD KBR007	1.00	13.00	0.96	14.00	1.20
SD KBR007	3.35	8.60	28.00	8.70	37.00
TP KBR005	0.70	16.00	2.60	16.00	6.70
TP KBR006	1.00	17.00	7.30	17.00	8.10
TP KBR007	0.40	12.00	18.00	11.00	16.00
PTS					
BH PTS001A	6.50	8.60	12.00	8.80	8.00
TP PTS013	0.35	9.10	14.00	9.40	8.50
TP PTS014	2.00	10.00	17.00	10.00	29.00
TP PTS021	2.10	12.00	1.30	13.00	1.30
TP PTS021	2.80	12.00	1.00	12.00	1.00
Range	**0.30 – 6.50**	**7.10 – 17.00**	**0.96 – 28.00**	**6.80 – 17.00**	**1.10 – 34.00**

Notes:
1. mbegl – metres below existing ground level.

4.4.100 Plate bearing testing was undertaken in this unit to determine modulus of subgrade reaction directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Tests were undertaken in trial pits in several locations, at depths between ground level and 0.5m below existing ground level. For the GT_V unit, these test results are given in Table 4-49 below.

Table 4-49 : GT_V - Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Modulus of Subgrade Reaction K_{762} (MPa/m)	Equivalent CBR (%)
M6J40 & KBR – No Results			
PTS			
TP PTS024	0.50	76.00	18.00
TP PTS026	0.50	75.50	17.00
RANGE	**0.40 – 3.30**	**38.42 – 68.55**	**17.00 – 42.00**
Notes: 1. mbegl – metres below existing ground level			

4.4.101 Strength of fine grained (cohesive) materials has been determined by in situ hand shear vane testing and laboratory triaxial testing. The hand shear vane tests determined both peak and residual strength information. Triaxial tests were undertaken for both undrained and drained conditions to determine shear strength in accordance with the methodology described in section 4.2 earlier.

4.4.102 In situ hand shear vane tests were undertaken on fine horizons of the GT_V unit. The tests comprise a set of three individual test readings using a calibrated hand shear vane to measure the Peak and Residual (remoulded) undrained shear strength of fine soils. Each set of three readings has been averaged and presented in Table 4-50.

Table 4-50 : GT_V – Undrained shear Strength – Hand Shear Vane

Exploratory Hole	Test Depth (m begl) Note 1	Peak Average Undrained Shear Strength (kPa)	Residual Average Undrained Shear Strength (kPa)
M6J40 and KBR – no results			
PTS			
TP PTS021	1.00	9	6
TP PTS026	1.00	45	17
Notes: 1. m begl = metres below existing ground level			

4.4.103 Undrained shear strength (c_u) was determined for a number of samples of GT_V. To determine likely behaviour under new construction loading, lateral cell pressures in the triaxial tests were set close to the in situ values, in general. Unconsolidated undrained tests were undertaken at these cell pressures and the results are given in the table below. Where sample type is given as “UT” the test has been undertaken on an undisturbed sample. Sample type of “B” applies to tests undertaken on remoulded material.

Table 4-51 : GT_V - Unconsolidated Undrained Shear Strength from Triaxial Tests

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Unconsolidated Undrained Shear Strength, C_u (kPa)
M6J40			
BH M6J40.002A	3.00	B	10.00
TP M6J40.004	0.50	B	40.00
KBR			
BH KBR006	3.00	B	63.00
BH KBR008	1.20	B	60.00
SD KBR005	3.65	B	70.00
SD KBR005	6.00	B	201.00
SD KBR007	1.00	B	27.00
SD KBR007	23.10	B	19.00
TP KBR005	2.50	B	28.00
PTS			
BH PTS008	1.20	B	46.00
BH PTS011	2.00	U	35.00
BH PTS023	1.20	UT	50.00

Notes:
1. mbegl – metres below existing ground level
2. B = Bulk sample, remoulded for test; UT = "Undisturbed" thin wall tube sample.; U = "Undisturbed" tube sample

4.4.104 Consolidated undrained triaxial tests were undertaken on a number of samples. These tests use a set of specimens (or a multi-stage test on one specimen) to determine a failure envelope, defined by an angle of friction (phi) and any associated apparent cohesion (c). Measurement of pore pressure during testing allows effective stresses to be calculated and consequently, effective strength parameters are determined (phi' and c'). Table 4-52 shows the testing undertaken and the strength parameters determined in the tests undertaken in the GT_V unit.

Table 4-52 : GT_V – Triaxial Testing (Effective Stress)

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Test Type Note 3	Triaxial Testing CUT with PPM Note 4 Shear Strength	
				c' (kPa)	Phi' (degrees)
M6J40					
BH M6J40.002A-1	1.20	B	CUM	2.50	37.50
KBR					
BH KBR003	4.50	B	CUM	3.00	34.50
BH KBR005	2.00	UT	CUM	1.00	36.60
BH KBR006	2.00	B	CUM	2.00	34.10
PTS – No Results					

Notes:
1. mbegl – metres below existing ground level.
2. B = Bulk sample, remoulded for test; UT = "Undisturbed" thin wall tube sample.
3. CU – Single stage test; CUM – Multi-stage on a single specimen.
4. CUT – Consolidated Undrained Triaxial Compression; PPM – Pore Pressure Measurement

4.4.105 In addition to the consolidated undrained triaxial testing detailed above, shear box testing was also undertaken predominantly on disturbed bulk samples, this was a direct result of the type of samples recovered from the boreholes for the GT_V unit. The results are summarised in .Table 4-53 below.

Table 4-53 : GT_V – Laboratory Shearbox Test Results

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Shear Strength	
			c' (kPa)	Phi' (degrees)
KBR				
BH KBR006	0.60	B	7	31.00
TP KBR006	1.00	LB	8	41.50
PTS				
BH PTS013	3.00	B	6	34.50
BH PTS017	2.00	UT	0	35.00
BH PTS017	4.00	B	13	33.00
BH PTS018	2.00	B	32	25.50
TP PTS014	2.00	D	0	35.50
TP PTS014	2.00	B	0	35.50
TP PTS016	2.10	B	2	33.50
TP PTS018	2.20	B	4	37.50
WS PTS016A	2.00	B	4	37.50
M6J40 – No Results				

Notes:
1. mbegl = metres below existing ground level.
2. B & LB = Bulk and Large Bulk disturbed samples. UT = "Undisturbed" Tube thin wall sample.

4.4.106 The GT_V unit was often described as sand on the preliminary logs and thought to be unsuitable for triaxial testing. Given the later assessments of the material, it is predominantly a fine-grained soil and further triaxial testing will be undertaken in the subsequent phase of investigation.

4.4.107 Compressibility and consolidation of fine material were determined by one-dimensional oedometer testing (described in 4.2). For the GT_V unit, there were no consolidation tests undertaken, again given the expected nature of material described as sand. In addition, many scheduled tests were the subject of ATN (described in 3.9) and deemed unsuitable, usually as a result of coarse gravel content. This would generally be unsuitable for oedometer testing. With the recent understanding that this sandy glacial till (GT_V) has fine-grained, cohesive material behaviour, further oedometer testing in this material will be attempted in the subsequent phase of investigation, although the gravel content may still limit the suitability of samples for this type of test.

4.4.108 Samples of soil were tested to determine aqueous extract sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements. Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (30). The pH and sulfate values for the GT_V unit are given in Table 4-54 below. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10.00mg/l. Results were only obtained for the KBR section of Package B. Further chemical testing shall be programmed during the next phase of ground investigation, particularly at the location of structures and areas of buried concrete are expected.

Table 4-54 : GT_V – pH and Sulfate Concentration

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l)
KBR			
TP KBR003	1.50	7.10	10
SD KBR008	1.55	7.60	11
BH KBR007	6.00	7.80	10
BH KBR012	5.00	8.00	10
SD KBR007	6.40	8.10	10
SD KBR008	6.00	8.40	23
M6J40 & PTS– No results			
RANGE	**1.50 – 6.40**	**7.10 – 8.40**	**10 – 23**
Notes: 1. mbegl – metres below existing ground level.			

Test Results – GT_CO (Cohesive Glacial Till)

4.4.109 The GT_CO unit is a fine grained material with its origin in the lodgement tills. This particular unit is less sandy than the GT_V unit discussed above; dominated by fine particles and described as a gravelly sandy CLAY with variable cobble and boulder content. Table 4-55 below lists the exploratory holes where the GT_CO unit was encountered.

Table 4-55 : GT_CO - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Firm to stiff brown slightly sandy gravelly CLAY with medium cobble content and low boulder content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of mixed lithologies including basalt and limestone. Cobbles and boulders are subangular to subrounded of mixed lithologies including limestone. Soft brown sandy gravelly CLAY with medium cobble content. Gravel is subangular to subrounded fine to coarse of mixed lithologies including limestone. Sand is fine to coarse. Cobbles are subangular to subrounded of mixed lithologies including limestone. Soft very low strength varying to soft to firm medium strength reddish brown with localised yellowish mottling slightly gravelly very sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles are subangular to subrounded of mixed lithologies including sandstone. Very stiff high strength reddish brown with localised yellowish mottling slightly gravelly very sandy CLAY with low cobble content and low boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies including sandstone. Cobbles and boulders are subangular to subrounded of mixed lithologies including sandstone.
BH M6J40.001, BH M6J40.002, BH M6J40.005-2, SD M6J40.005a, BH KBR002, BH KBR003, BH KBR009, BH KBR011, SD KBR005, SD KBR008, BH PTS001A, BH PTS002, BH PTS003, BH PTS007, BH PTS010, BH PTS011, BH PTS012, BH PTS013, BH PTS019, BH PTS020, BH PTS021, BH PTS022, BH PTS023	0.25 – 21.39	
Trial Pits		
HP M6J40.009, HTP M6J40.001, HTP M6J40.002, TP M6J40.005, TP M6J40.007, TP KBR004, TP KBR009, TP PTS004, TP PTS004A, TP PTS004B, TP PTS012, TP PTS017, TP PTS019, TP PTS020, TP PTS021, TP PTS022, TP PTS024, TP PTS025, TP PTS026, TP PTS027	0.20 – 3.50	

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Notes: 1. mbegl – metres below existing ground level.		

4.4.110 The descriptions for cohesive glacial till in Table 4-55 are typical. Generally described as gravelly sandy CLAY, the fine fractions of these soils (clay) will have the greatest influence on the material behaviour. In particular, the proportions of the various fractions and particle shape will control the strength characteristics of the whole soil matrix. This is discussed later in the 'Derived Parameters' section for the GT_CO unit.

4.4.111 In situ and laboratory test results for the GT_CO unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.112 Particle size distribution (PSD) curves are plotted in Figure 4-24 below. The plots present a close relationship with the typical descriptions and global engineering descriptions presented within individual engineering logs.

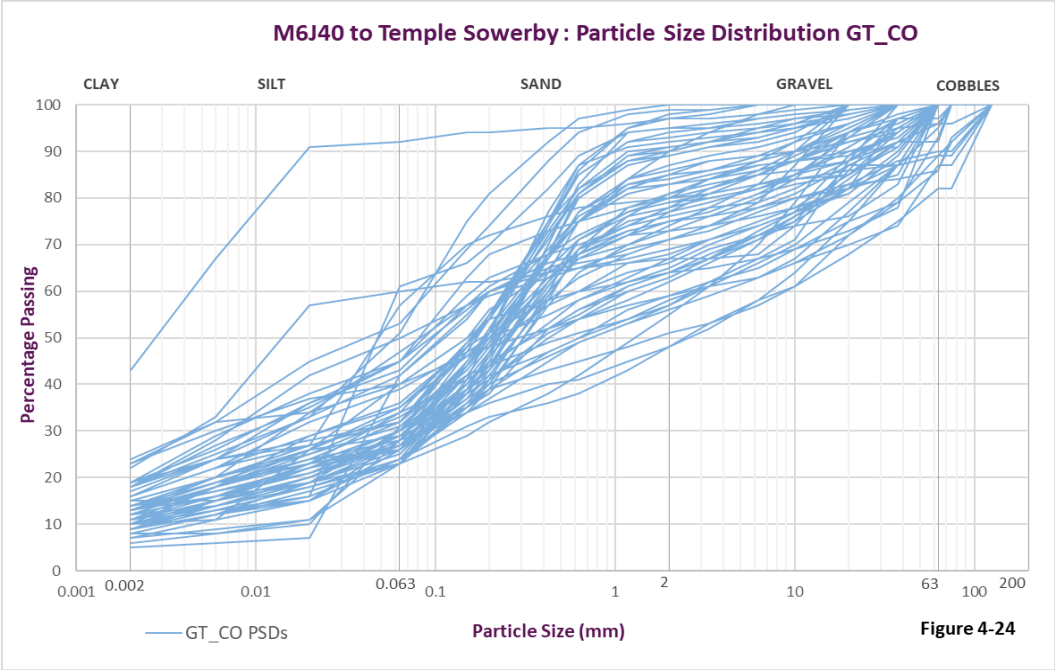

Figure 4-24 : GT_CO - Particle Size Distribution Plots

4.4.113 Standard Penetration Tests were undertaken in boreholes for this unit. The raw test values were standardised to a hammer energy of 60% (N_{60}) and the range of values is presented in Table 4-56

Table 4-56 : GT_CO - Standard Penetration Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
All boreholes	1.20 – 21.00	2.00 – 74.00
BH M6J40 series	1.20 – 21.00	10.00 – 74.00
BH KBR series	1.20 – 19.50	8.00 – 74.00
BH PTS series	1.20 – 9.70	2.00 – 61.00
Notes: 1. mbegl – metres below existing ground level		

4.4.114 The SPT results presented above are shown graphically with depth in Figure 4-25 below.

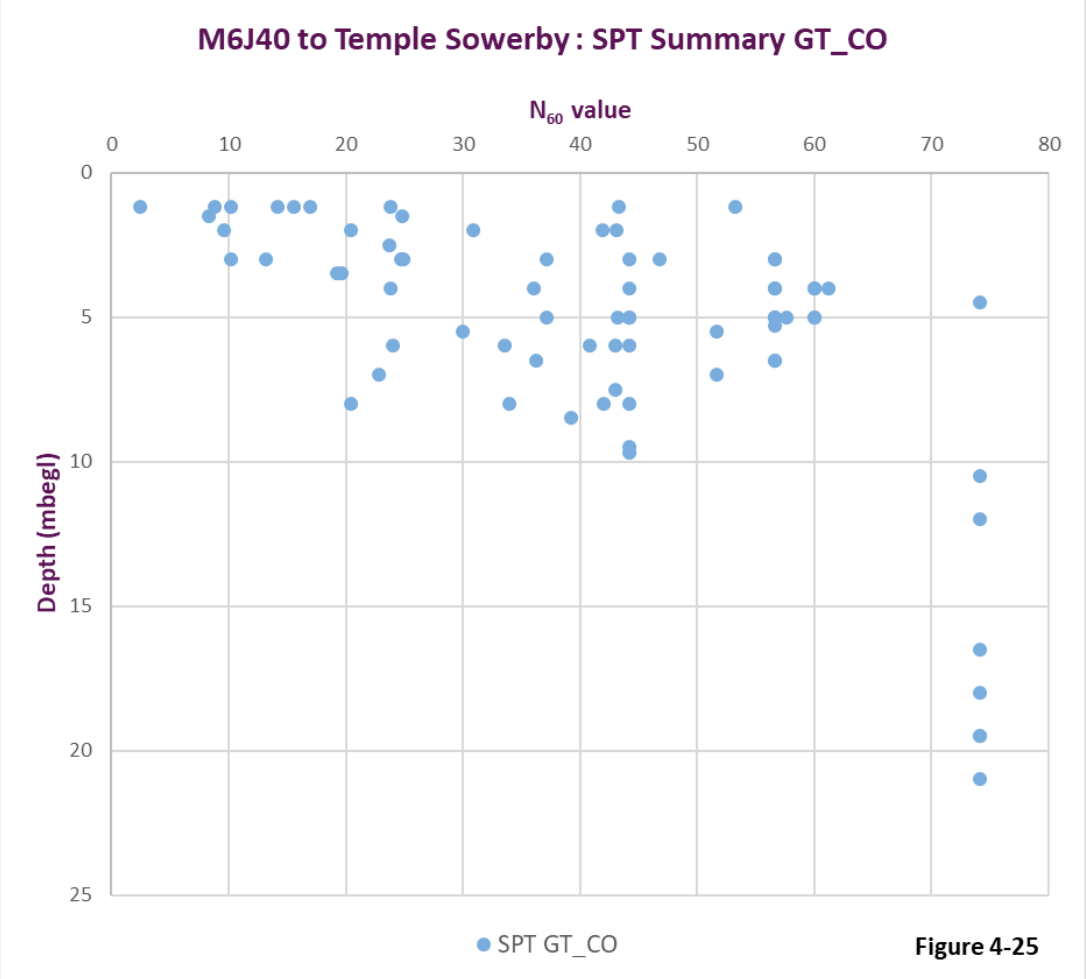

Figure 4-25 : GT_CO - SPT, N_{60} versus Depth

4.4.115 Atterberg Limits are used to determine the plasticity index for silt and clay sized fractions. For the fine grained tills, the clay and silt fractions dominate the overall soil matrix behaviour. A plot of plasticity index against liquid limit is used to characterise the fine fraction. In the figure below, it can be seen that the majority of samples classify as clay of low plasticity.

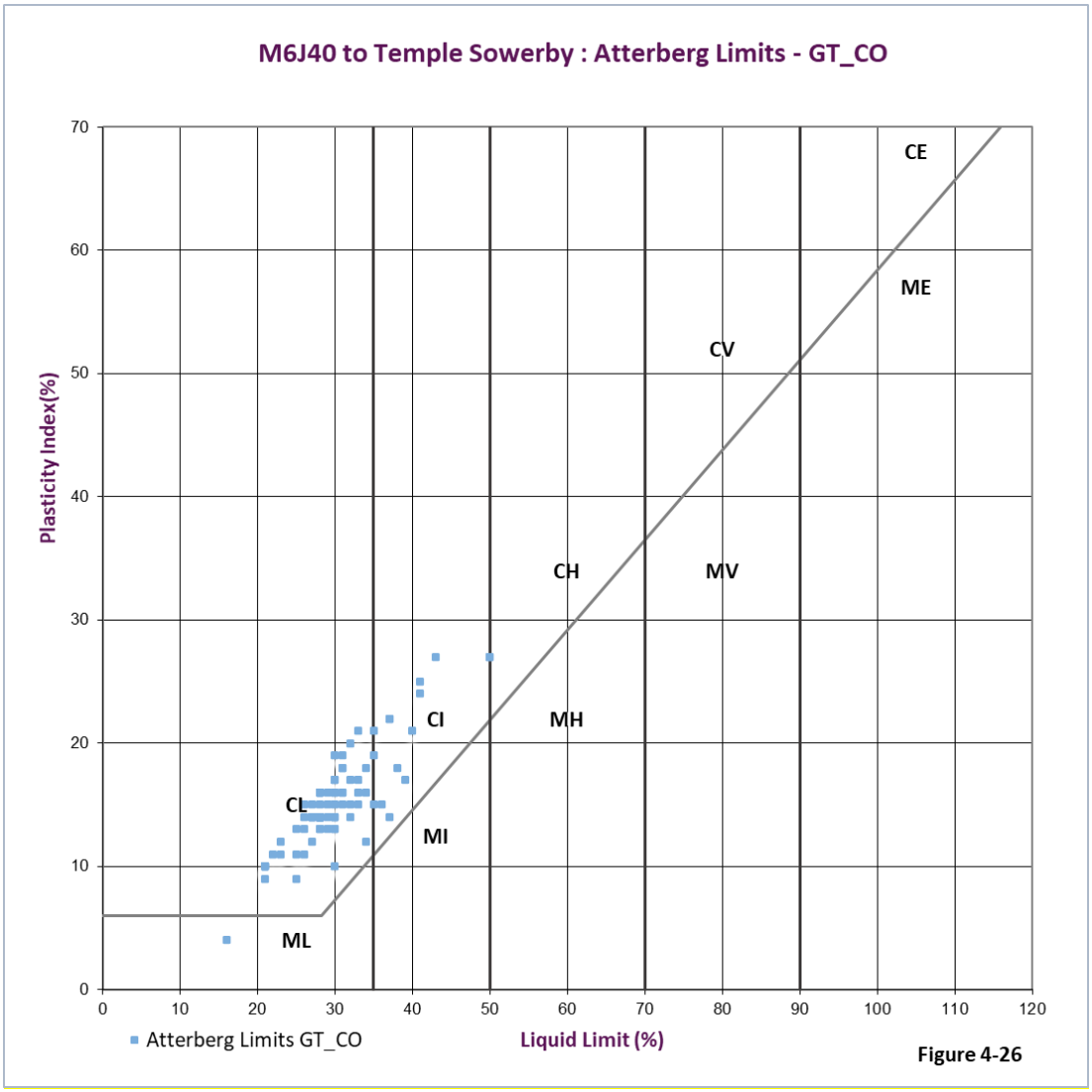

Figure 4-26 : GT_CO - Atterberg Limits

4.4.116 The relationship between natural moisture content and the plastic limit moisture content is a determinant of re-usability of excavated fine soil in its natural or 'as-dug' condition. The SHW uses this relationship to classify suitability as fill and generally allows a range of moisture contents around the plastic limit.

4.4.117 In the SHW, the upper limit moisture content designating Class 2B dry cohesive fills is set at (PL-4%). It follows that any material with a natural as-dug moisture content greater than (PL-4%) will therefore exceed this upper limit and will be designated as Class 2A wet cohesive fill.

4.4.118 In Figure 4-27 below, the difference between the natural moisture content and (PL-4%) is shown, in addition to the variation with depth. Positive values on the X-axis (NMC-[PL-4]) denote samples which are naturally wetter than PL-4% (Class 2A), while the reverse applies for negative values. This effectively means that most of the GT_CO material is Class 2A wet

cohesive fill as indicated by reference to Figure 4-27 below. The impact on suitability and re-use is discussed in the later earthworks appraisal sections.

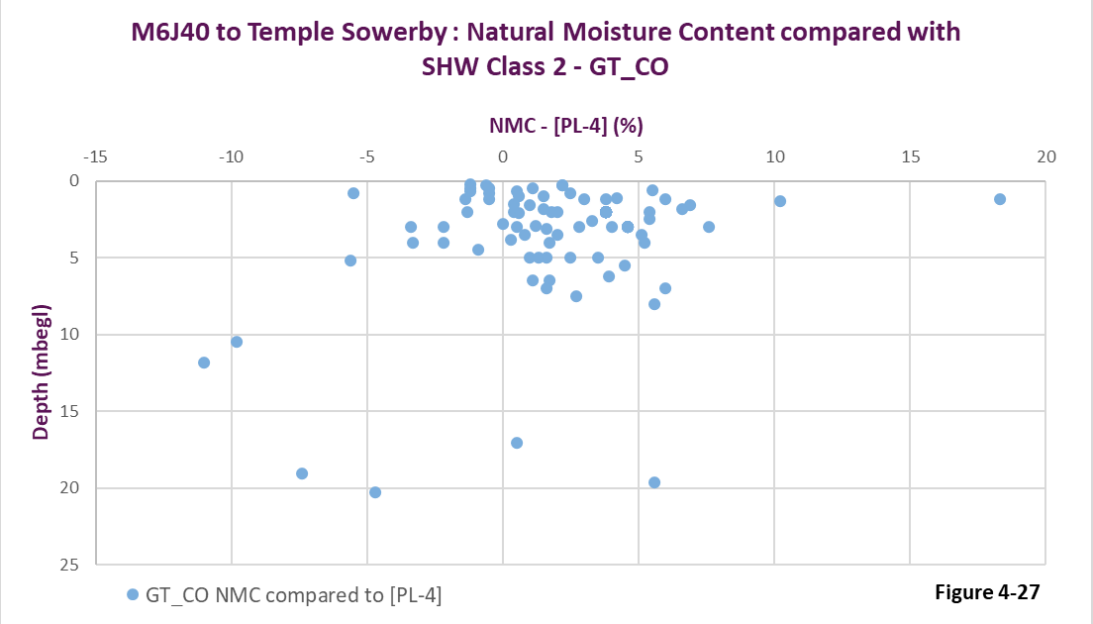

Figure 4-27 : GT_CO – Natural Moisture Content and SHW Class 2 Limit versus Depth

4.4.119 The GT_CO unit is a likely candidate for future re-use in earthworks. Compaction testing was undertaken of the material and a relationship between dry density and moisture content was determined for those samples. All samples were tested to Standard Proctor. Limited test results have been reported, in part due to the volume of testing ATNs reported during the first phase of ground investigation. Further testing will be considered during the next phase of ground investigation to enable correlations for the wider geological unit. The graphical relationship can be found in the 2021 GI Factual Report (8). Table 4-57 below provides the maximum dry density achieved for a given sample and the corresponding water content.

Table 4-57 : GT_CO – Maximum Dry Density and Optimum Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Optimum Moisture Content (%)
KBR			
BH KBR009	3.00	2.09	9.70
BH KBR011	5.00	2.16	9.00
PTS			
BH PTS020	5.00	2.07	8.70
RANGE	**3.00 – 5.00**	**2.07 – 2.16**	**8.70 – 9.70**
Notes: 1. mbegl – metres below existing ground level.			

4.4.120 The maximum dry density and corresponding moisture contents are plotted below in Figure 4-28.

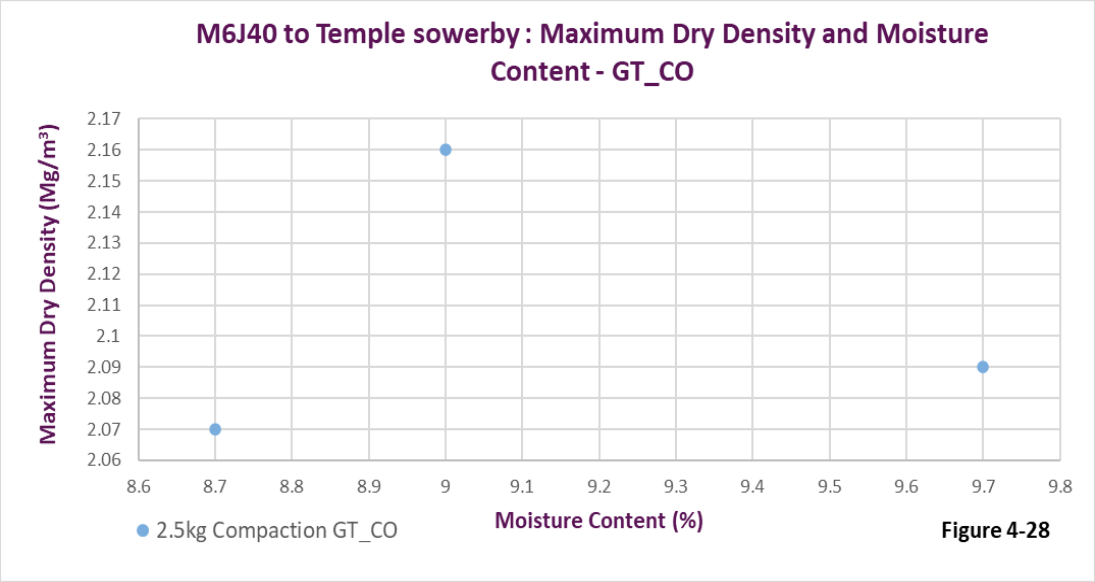

Figure 4-28 : GT_CO - Maximum Dry Density and Moisture Content Range

4.4.121 In addition to the compaction testing undertaken above, Moisture Condition Value (MCV) tests were undertaken on samples of GT_CO. The results are summarised in Table 4-58, showing the range of potential MCV values and corresponding moisture contents. The individual results from each calibration test are also shown, rather than each calibration line. Individual calibration lines can be viewed in the 2021 GI Factual Report (8). The calibration test results used a range of moisture contents inclusive of the natural moisture content if possible, but in a few cases the NMC was outwith the workable range and produced a "zero" or very low MCV result

Table 4-58 : GT_CO - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%) Note 3	MCV (Value) Note 2
KBR				
BH KBR002	3.50	Single	13.00	7.70
BH KBR002	5.00	Single	12.00	4.30
BH KBR003	1.50	Calibration	11.90	11.10
BH KBR003	1.50	Calibration	11.00	12.50
BH KBR003	1.50	Calibration	10.00	14.60
BH KBR003	1.50	Calibration	12.60	8.30
BH KBR009	1.20	Calibration	12.60	4.30
BH KBR009	1.20	Calibration	11.80	7.60
BH KBR009	1.20	Calibration	9.70	11.10
BH KBR009	1.20	Calibration	8.30	11.70
BH KBR009	5.00	Calibration	11.40	2.10
BH KBR009	5.00	Calibration	10.70	4.40
BH KBR009	5.00	Calibration	9.90	7.50
BH KBR009	5.00	Calibration	8.60	9.80
BH KBR009	5.00	Calibration	7.30	12.90
BH KBR011	3.00	Calibration	19.20	6.80
BH KBR011	3.00	Calibration	15.70	9.00
BH KBR011	3.00	Calibration	13.10	12.00
BH KBR011	3.00	Calibration	20.00	4.40
M6J40				

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%) Note 3	MCV (Value) Note 2
BH M6J40.001	1.20	Calibration	15.40	6.50
BH M6J40.001	1.20	Calibration	16.20	5.10
BH M6J40.001	1.20	Calibration	14.50	8.60
BH M6J40.001	1.20	Calibration	14.20	10.60
BH M6J40.001	3.00	Single	17.00	4.70
PTS				
BH PTS007	1.20	Single	38.00	0.00
BH PTS010	0.60	Single	18.00	2.40
BH PTS012	3.00	Single	8.40	8.80
BH PTS020	1.00	Calibration	13.70	6.40
BH PTS020	1.00	Calibration	17.10	1.00
BH PTS020	1.00	Calibration	11.60	8.50
BH PTS020	1.00	Calibration	8.20	13.00
BH PTS020	3.00	Calibration	13.90	4.00
BH PTS020	3.00	Calibration	16.50	0.00
BH PTS020	3.00	Calibration	11.20	6.80
BH PTS020	3.00	Calibration	8.40	12.10
BH PTS021	1.20	Calibration	12.70	5.00
BH PTS021	1.20	Calibration	14.20	0.00
BH PTS021	1.20	Calibration	10.60	8.30
BH PTS021	1.20	Calibration	5.50	13.40
BH PTS022	4.00	Single	12.00	1.10
TP PTS019	1.90	Single	9.90	8.30
TP PTS020	1.30	Single	15.00	3.80
TP PTS020	2.60	Single	13.00	2.20
TP PTS024	3.00	Single	12.00	4.70
TP PTS025	1.80	Single	15.00	0.00
TP PTS026	2.00	Calibration	11.30	6.60
TP PTS026	2.00	Calibration	14.50	0.00
TP PTS026	2.00	Calibration	5.20	14.20
TP PTS027	1.80	Single	14.00	5.80
RANGE	**0.60 – 5.00**	**-**	**5.20 – 38.00**	**0.00 – 14.60**

Notes:
1. mbegl – metres below existing ground level.
2. Where MCV value is given a zero, there was no valid test result.
3. Moisture content reported on the Single MCV results, is the natural moisture content.

4.4.122 The Moisture Condition Values listed in Table 4-58 are presented against moisture content in Figure 4-29 below.

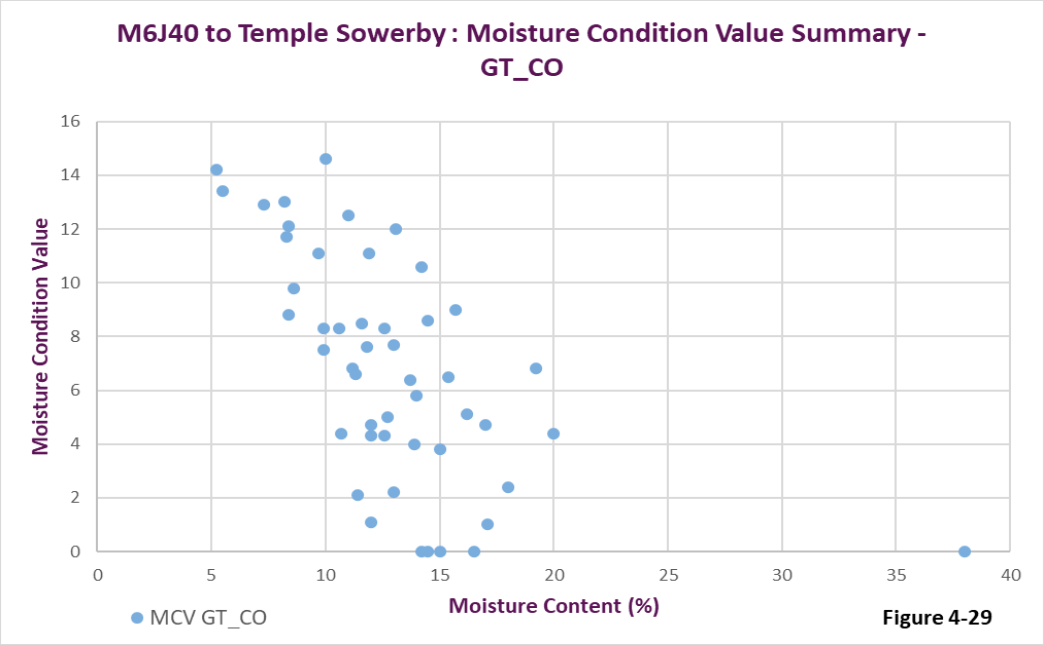

Figure 4-29 : GT_CO - Moisture Condition Value and Moisture Content Relationship

4.4.123 Unsoaked laboratory CBR tests were undertaken on selected samples taken from the GT_CO unit at depths between 0.25m begl and 4.00m begl, close to the proposed formation level for the design alignment at time of writing this report. The results of the tests are given in Table 4-59 below.

Table 4-59 : GT_CO – Laboratory CBR Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Moisture Content Top (%)	CBR Top (%)	Moisture Content Bottom (%)	CBR Bottom (%)
M6J40					
BH M6J40.001	3.00	18.00	1.20	18.00	1.20
HTP M6J40.001	0.50	15.00	3.40	14.00	4.20
HTP M6J40.002	0.50	13.00	5.10	14.00	6.20
TP M6J40.005	0.30	20.00	8.20	20.00	8.60
TP M6J40.007	0.25	14.00	11.00	13.00	14.00
KBR – No Results					
PTS					
BH PTS011	3.00	11.00	7.80	11.00	10.00
BH PTS022	4.00	12.00	1.00	12.00	0.88
TP PTS019	1.90	9.90	23.00	10.00	34.00
TP PTS024	3.00	11.00	1.90	11.00	2.30
TP PTS025	1.80	14.00	0.48	15.00	0.45
TP PTS026	2.00	11.00	2.10	11.00	2.00
Range	**0.25 – 4.00**	**9.90 – 20.00**	**0.48 – 23.00**	**10.00 – 20.00**	**0.45 – 34.00**

Notes:
1. mbegl – metres below existing ground level.

4.4.124 Plate bearing testing was undertaken in this unit to determine modulus of subgrade reaction directly and by correlation, to report an equivalent California Bearing Ratio (CBR). Tests were undertaken in trial pits in several locations, at depths between ground level and 0.50m below existing ground level. For the GT_CO unit, these test results are given in Table 4-60 below.

Table 4-60 : GT_CO - Plate Bearing Test Results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Plate Bearing Test Results	
		Modulus of Subgrade Reaction K_{762} (MPa/m)	Equivalent CBR (%)
M6J40– No Results			
KBR			
TP KBR004	0.50	108.70	33.00
PTS			
TP PTS004	0.50	134.30	47.00
TP PTS025	0.45	82.00	20.00
RANGE	**-**	**82.00 – 134.30**	**20.00 – 47.00**
Notes: 1. mbegl – metres below existing ground level			

4.4.125 In addition to the California Bearing Ratio tests reported above, subgrade surface stiffness modulus was determined using lightweight deflectometer (section 3.4). Plate bearing tests were not performed on this unit. The lightweight deflectometer results are presented in Table 4-61.

Table 4-61 : GT_CO – Lightweight Deflectometer Results

Exploratory Holes	Instructed Test Depth Range (mbegl) Note 1	Subgrade Surface Modulus, E_{min} / E_{max}/$E_{average}$ (MPa) Note 2
TP M6J40.005	0.50	13.79 / 17.15 / 15.11
TP M6J40.007	0.50	23.97 / 26.95 / 25.71
KBR and PTS – no results.		
RANGE	**-**	**-**
Notes: 1. mbegl - metres below existing ground level 2. E_{min} and E_{max} and $E_{average}$ determined from between 6 and 10 individual readings per test. First 3no drops ignored as seating		

4.4.126 In situ hand shear vane tests were undertaken on fine horizons of the GT_CO unit. The tests comprise a set of three individual test readings using a calibrated hand shear vane to measure the Peak and Residual (remoulded) undrained shear strength of fine soils. Each set of three reading has been averaged and presented in Table 4-62. On occasion only Peak readings were recorded, in these instances the residual column has been left blank.

Table 4-62 : GT_CO – Undrained Shear Strength – Hand Shear Vane

Exploratory Hole	Test Depth (m begl) Note 1	Peak Average Undrained Shear Strength (kPa)	Residual Average Undrained Shear Strength (kPa)
M6J40			
HTP M6J40.001	1.00	61	18
HTP M6J40.002	1.00	63	17
KBR			
TP KBR004	0.80	41	-
TP KBR004	1.50	42	-
TP KBR004	1.80	50	-
PTS			
TP PTS012	2.00	15	5
TP PTS020	1.00	51	22
TP PTS020	2.00	52	24

Exploratory Hole	Test Depth (m begl) Note 1	Peak Average Undrained Shear Strength (kPa)	Residual Average Undrained Shear Strength (kPa)
TP PTS020	3.00	71	28
TP PTS021	2.00	22	10
TP PTS021	3.00	50	19
TP PTS021	3.30	71	19
TP PTS022	3.00	93	33
TP PTS024	1.00	17	7
TP PTS024	2.00	27	10
TP PTS024	3.00	56	17
TP PTS025	1.00	36	11
TP PTS025	2.00	22	11
TP PTS026	2.00	54	20
TP PTS027	2.00	64	22

Notes:
1. m begl = metres below existing ground level

4.4.127 Strength of fine grained (cohesive) materials has been determined by laboratory triaxial testing. Triaxial tests were undertaken for both undrained and drained conditions to determine shear strength in accordance with the methodology described in section 4.2 earlier.

4.4.128 Undrained shear strength (c_u) was determined for a number of samples of GT_CO. To determine likely behaviour under new construction loading, lateral cell pressures in the triaxial tests were set close to the in situ values, in general. Unconsolidated undrained tests were undertaken at these cell pressures and the results are given in Table 4-63. Where undrained multi-stage tests were undertaken, the figure reported in the table is the arithmetic mean of the individual stage results (rounded to the nearest whole number). Where sample type is given as "UT" the test has been undertaken on an undisturbed sample. Sample type of "B" applies to tests undertaken on remoulded material.

Table 4-63 : GT_CO – Unconsolidated Undrained Shear Strength from Triaxial Tests

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Unconsolidated Undrained Shear Strength, C_u (kPa)
M6J40			
BH M6J40.001	2.00	B	39
SD M6J40.005a	17.60	B	65
HTP M6J40.001	0.50	B	79
HTP M6J40.002	0.50	B	87
BH M6J40.005-2	4.50	UT	129
TP M6J40.007	0.25	B	150
BH M6J40.002	3.00	B	20
BH M6J40.005-2	2.50	UT	95
PTS			
TP PTS024	2.10	B	46
TP PTS012	1.60	B	53
BH PTS001A	3.00	UT	55
TP PTS024	3.00	B	58
BH PTS012	2.00	B	81
BH PTS023	6.00	B	81
TP PTS022	2.30	B	110
Range	**0.25 – 17.60**	**-**	**20 – 150**

Notes:
1. mbegl – metres below existing ground level
2. B = Bulk sample, remoulded for test; UT = "Undisturbed" thin wall tube sample.

4.4.129 Consolidated undrained triaxial tests with measurement of pore pressure were undertaken on a number of samples. These tests use a set of specimens (or a multi-stage test on one specimen) to determine a failure envelope, defined by an effective angle of friction (phi') and any associated apparent cohesion (c'). Measurement of pore pressure during testing allows effective stresses to be calculated and consequently, effective strength parameters are determined (phi' and c'). Table 4-64 shows the testing undertaken and the strength parameters determined in the tests undertaken in the GT_CO unit.

Table 4-64 : GT_CO – Triaxial Testing (Effective Stress)

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Test Type Note 3	Triaxial Testing CUT with PPM Note 4 Shear Strength Parameters	
				c' (kPa)	Phi' (degrees)
M6J40					
BH M6J40.001	4.00	B	CU	5	34.20
HP M6J40.009	0.80	B	CU	2	30.20
SD M6J40.005a	5.70	B	CU	4	27.20
TP M6J40.005	0.30	LB	CU	1	26.20
KBR					
BH KBR011	3.00	B	CU	6	23.50
PTS					
BH PTS002	2.00	UT	CU	2	32.20
BH PTS003	1.20	B	CUM	2	33.90
BH PTS019	4.00	UT	CU	8	34.80
BH PTS020	2.00	UT	CU	2	32.70
BH PTS020	6.50	UT	CU	9	28.30
BH PTS021	2.00	UT	CU	5	34.90
BH PTS022	5.00	UT	CU	20	32.30
TP PTS004B	1.90	B	CU	2	32.90
Range	**0.30 – 6.50**	**-**	**-**	**1 - 20**	**23.50 – 34.90**

Notes:
1. mbegl – metres below existing ground level.
2. B = Bulk sample, remoulded for test; UT = "Undisturbed" thin wall tube sample.
3. CU – Single stage test; CUM – Multi-stage on a single specimen.
4. CUT – Consolidated Undrained Triaxial Compression; PPM – Pore Pressure Measurement.

4.4.130 In addition to the consolidated undrained triaxial testing detailed above, a single small shear box test was undertaken on a disturbed bulk sample, which was a direct result of the type of samples recovered from the boreholes for the GT_CO unit. The result is summarised in Table 4-65. Each stage was over a two day period.

Table 4-65 : GT_CO – Laboratory Shearbox Testing results

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Shear Strength	
			c' (kPa)	Phi' (degrees)
PTS				
TP PTS019	1.90	B	0	31.50
M6J40 & KBR – No Results				

Notes:
1. mbegl = metres below existing ground level.
2. B & LB = Bulk and Large Bulk disturbed samples. UT = "Undisturbed" Tube thin wall sample.

4.4.131 Compressibility and consolidation of fine material were determined by one-dimensional oedometer testing (described in 4.2). The limited number of scheduled tests is in part due to samples subject to ATNs (described in 3.9) and deemed unsuitable, usually as a result of coarse gravel content. This would generally be unsuitable for oedometer testing. Further

oedometer testing in this material will be scheduled in the next phase of investigation, particularly at the location of structures and embankment earthworks, although the gravel content may still limit the suitability of samples for this type of test. Tests which were completed successfully are shown in Table 4-66.

Table 4-66 : GT_CO – Compressibility – Oedometer Consolidation Coefficients (m_v and c_v)

Exploratory Holes	Test Depth (mbegl) Note 1	Stress Increment (kPa)	Coefficient of Volume Compressibility m_v (m^2/MN)	Coefficient of Consolidation c_v (m^2/year) Note 2
BH PTS019	4.00	50	0.380	0.00
BH PTS019	4.00	100	0.110	0.00
BH PTS019	4.00	200	0.065	0.00
BH PTS019	4.00	400	0.041	0.00
BH PTS019	4.00	200	unloading	
BH PTS020	2.00	50	0.430	7.80
BH PTS020	2.00	100	0.130	4.40
BH PTS020	2.00	200	0.093	12.00
BH PTS020	2.00	400	0.056	12.00
BH PTS020	2.00	200	unloading	

Notes:
1. mbegl – metres below existing ground level.
2. '0' value represent no result reported.

4.4.132 In the table above, values of coefficient of volume compressibility (m_v) and coefficient of consolidation (c_v) are given for the stress increments applied during tests on two individual specimens. Consideration will be given to values of each of these coefficients, in relation to the sample depth and the stress increments, in the "Derived Parameters" section, subsequently. Compression Index (Cc) has not been determined as part of this report as the establishment of a definitive straight line section of the graphs can be problematic and conjectural.

4.4.133 Samples of soil were tested to determine aqueous extract sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements (ground aggressivity). Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (30). The pH and sulfate values for the GT_CO unit are given in Table 4-67. Where no value is given for the sulfate concentration, this means that the compound could not be detected as the concentration was lower than the limit of detection, in this case 10mg/l. Results were only obtained for the KBR section of Package B. Further chemical testing shall be programmed during the next phase of ground investigation, particularly at the location of structures and areas of buried concrete are expected.

Table 4-67 : GT_CO – pH and Sulfate Concentration

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l) Note 2
M6J40			
BH M6J40.001	1.20	8.00	10.00
SD M6J40.005a	8.00	7.30	20.00
SD M6J40.005a	6.00	8.10	10.00
TP M6J40.005	0.30	8.10	220.00
TP M6J40.007	0.50	8.20	25.00
KBR			
BH KBR009	2.00	8.20	84.00
TP KBR004	0.90	8.50	10.00
PTS			
BH PTS001A	2.50	7.70	22.00
BH PTS002	2.50	8.00	590.00
BH PTS003	2.00	8.40	10.00
BH PTS010	1.20	6.70	21.00
BH PTS011	3.00	6.80	10.00
BH PTS021	2.00	8.20	10.00
TP PTS004	0.50	8.80	26.00
TP PTS022	2.40	7.10	19.00
RANGE	**0.30 – 8.00**	**6.70 – 8.80**	**10.00 – 590.00**

Notes:
1. mbegl – metres below existing ground level.
2. Where a result of 10 mg/l is reported, the actual result was less that level of detection for that test.

4.4.134 A single in situ soakaway test was executed within the KBR section of Package B, south and east of Kemplay Bank Roundabout in the vicinity of the proposed sustainable urban drainage (SuDs) pond. The test was undertaken in accordance with BRE 365 (15). The result of the test is summarised in Table 4-68 below.

Table 4-68 : GT_CO - Soakaway Test Results

Exploratory Hole	Test Depth (m begl) Note 1	Infiltration Rate, f (m/s) Note 2
TP KBR009	2.00	N/A

Note:
1. m begl = metres below existing ground level
2. N/A represents, infiltration rate not possible to calculate. In this instance the water did not drain from the pit.

Test Results - SAND

4.4.135 The Geology Unit SAND is specifically a coarse deposit, composed primarily of Sand. This deposit is generally associated with weathered bedrock of the Penrith Formation and association with fluvial deposits. This unit was identified during the ground investigation in exploratory holes within the PTS section of Package B. Table 4-69 below provides a summary of where the SAND unit was encountered.

Table 4-69 : SAND - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		Extremely weak reddish brown SANDSTONE recovered as gravelly sand. (Possible Weathered Bedrock) Medium dense reddish brown slightly gravelly clayey fine to coarse SAND. Gravel is subangular to rounded fine to coarse of mixed lithologies including sandstone, limestone, and slate and siltstone. Very dense reddish brown slightly clayey fine to coarse SAND. (Possible Weathered Bedrock)
BH PTS006, BH PTS007, BH PTS008, BH PTS009, BH PTS011, BH PTS014, BH PTS015, BH PTS017, BH PTS018	1.20 – 9.24	
Trial Pits		
TP PTS022, TP PTS023	0.65 – 3.80	

Notes:
1. mbegl – metres below existing ground level

4.4.136 The descriptions for SAND in Table 4-69 are typical. Generally described as a gravelly Sand or a clayey Sand. In particular, the coarse fractions and particle roundness will control the strength characteristics of the soil. This is discussed later in the 'Derived Parameters' section for the SAND unit.

4.4.137 In situ and laboratory test results for the SAND unit are provided in the following charts and tables, with relevant explanation and discussion.

4.4.138 Particle size distribution (PSD) curves are plotted in Figure 4-30 below. The plots present a close relationship with the typical descriptions and global engineering descriptions presented within individual engineering logs.

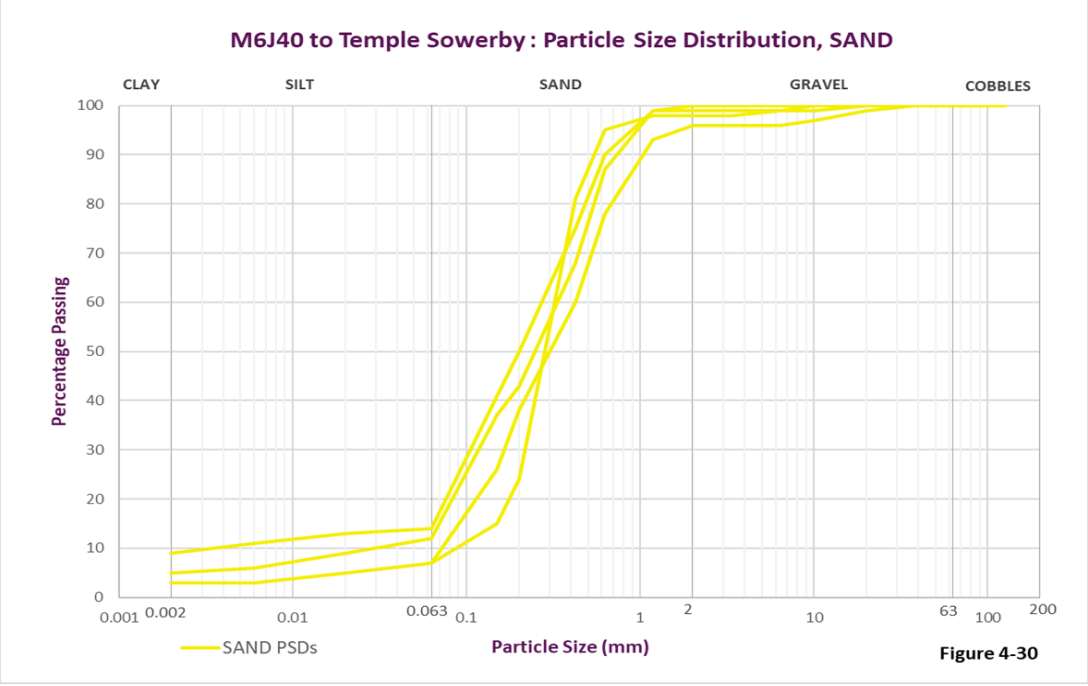

Figure 4-30 : SAND - Particle Size Distribution Plots

4.4.139 Standard Penetration Tests were undertaken in boreholes for this unit. The raw test values were standardised to a hammer energy of 60% (N60) and the range of values is presented in the table below.

Table 4-70 : SAND - Standard Penetration Test results

Exploratory Holes	Test Depth Range (mbegl) Note 1	Standard Penetration Test Results Range N_{60}
All boreholes	1.20 – 9.00	31 - 64
Notes: 1. mbegl – metres below existing ground level		

4.4.140 The SPT results presented above are shown graphically with depth in Figure 4-31below.

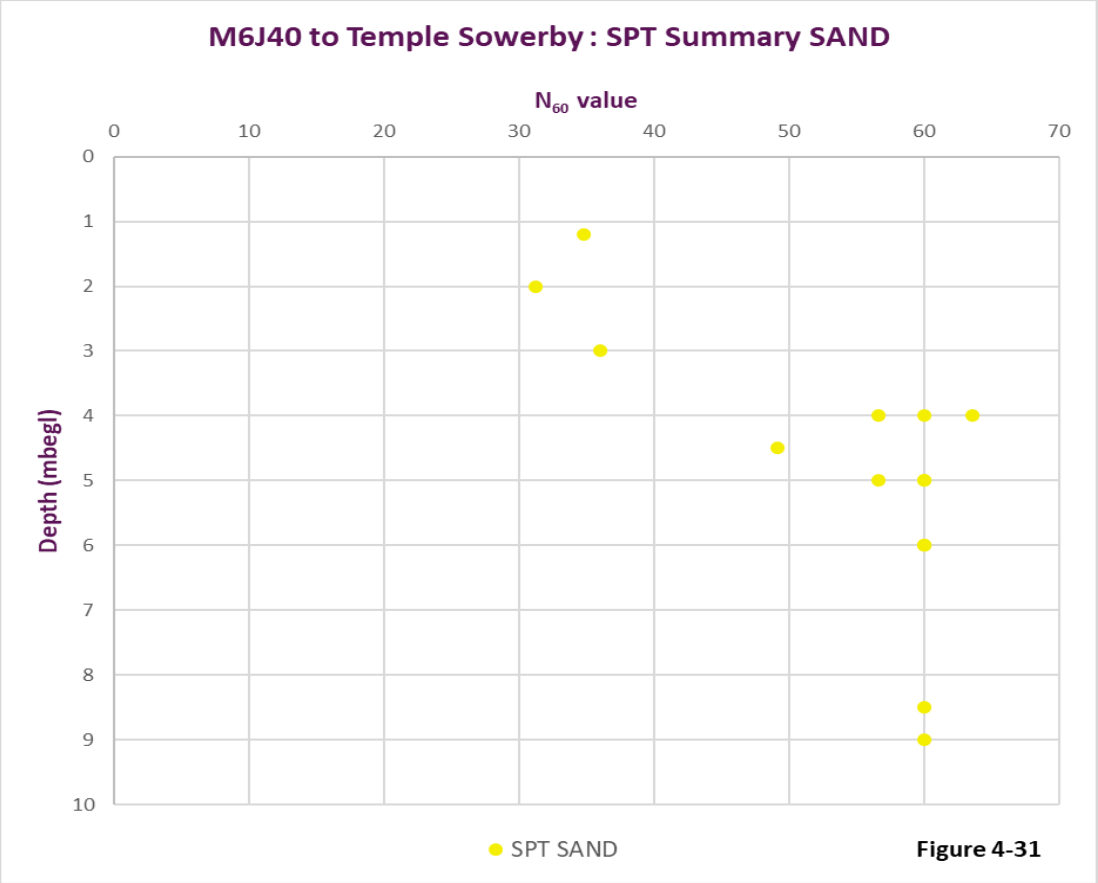

Figure 4-31 : SAND – SPT, N_{60} versus Depth

4.4.141 The SAND unit is a likely candidate for future re-use in earthworks as it is considered a free draining granular soil. Compaction testing using Standard Proctor was undertaken on the material and a relationship between dry density and moisture content was determined for the two samples tested. Limited test results have been reported, in part due to the volume of testing ATNs reported during the first phase of ground investigation and the limited occurrence of the deposit. Further testing will be considered during the next phase of ground investigation to enable correlations for the wider geological unit. The graphical relationship can be found in

the 2021 GI Factual Report. Table 4-71 below provides the maximum dry-density achieved for a given sample and the corresponding water content.

Table 4-71 : SAND – Maximum Dry Density and Moisture Content Relationship

Exploratory Holes	Sample Depth (mbegl) Note 1	Maximum Dry Density (Mg/m^3)	Optimum Moisture Content (%)
PTS			
BH PTS011	5.00	1.94	9.20
TP PTS023	0.65	1.88	12.00
M6J40 and KBR – No results			
Notes: 1. mbegl – metres below existing ground level.			

4.4.142 In addition to the compaction testing summarised above moisture condition value testing was scheduled on samples and summarised in Table 4-72 below. Single point tests alone were scheduled at natural moisture content.

Table 4-72 : SAND - Moisture Condition Value Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Test Type	Moisture Content (%)	MCV (Value) Note 2
PTS				
BH PTS011	4.00	Single	14.00	6.50
TP PTS023	0.65	Single	12.00	6.00
Notes: 1. mbegl – metres below existing ground level. 2. Where MCV value is given a zero, there was no valid test result.				

4.4.143 A single shearbox test was performed on a selected sample of the SAND unit and is summarised in Table 4-73 below.

Table 4-73 : SAND – Laboratory Shearbox Testing Results

Exploratory Holes	Test Depth (mbegl) Note 1	Sample Type Note 2	Shear Strength	
			c' (kPa)	Phi' (degrees)
PTS				
BH TPS015	1.20	B	6	31.50
M6J40 & KBR – No Results				
Notes: 1. mbegl = metres below existing ground level. 2. B & LB = Bulk and Large Bulk disturbed samples. UT = "Undisturbed" Tube thin wall sample.				

Test Results – ALV

4.4.144 The geological unit ALV is an organic (peaty) deposit with varying portions of coarse and fine particle constituents, associated with a vegetated floodplain environment. This unit was identified during the ground investigation in exploratory holes within two locations of the PTS section of Package B. Table 4-74 below provides a summary of where the ALV unit was encountered.

Table 4-74 : ALV - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		
BH PTS005, BH PTS008	0.40 – 3.90	Dark blackish brown fibrous PEAT with plant remnants. Rare subangular to subrounded fine to medium gravel of mixed lithologies. (No water squeezes out of peat.) Soft brown fibrous sandy gravelly PEAT with rootlets and occasional pockets of soft to firm brown gravelly clay.
Notes: 1. mbegl – metres below existing ground level		

4.4.145 The descriptions for ALV in Table 4-74 are typical. Generally described as a fibrous Peat, however the horizons encountered also recorded gravel and soft sandy clay within the Peat matrix. In particular, the organic content will control the strength characteristics of the soil. This is discussed later in the 'Derived Parameters' section for the ALV unit.

4.4.146 In situ and laboratory test results for the ALV unit are limited. Those reported are provided in the following charts and tables, with relevant explanation and discussion.

4.4.147 A single sample of soil from the ALV unit was tested to determine aqueous extract sulfate and pH. These results form the basis of assessing soil for potential chemical risk to future buried concrete and metallic elements (ground aggressivity). Concentration of soluble sulfate and pH of the soil are used together in the design process, following guidance in BRE SD1 (30). The pH and sulfate values are given in Table 4-75. Results were only obtained for the PTS section of Package B. Further chemical testing shall be programmed during the next phase of ground investigation, particularly at the location of structures and where areas of buried concrete are expected.

Table 4-75 : ALV – pH and Sulfate Concentration

Exploratory Holes	Sample Depth (mbegl) Note 1	pH (value)	Aqueous Extract Sulfate Concentration (mg/l) Note 2
PTS			
BH PTS008	3.00	7.60	270.00
Notes: 1. mbegl – metres below existing ground level. 2. Where a result of 10 mg/l is reported, the actual result was less than level of detection for that test.			

4.4.148 A single Organic Matter Content test was undertaken on the ALV geological unit. The result is presented below in Table 4-76.

Table 4-76 : ALV - Organic Matter Content Results

Exploratory Holes	Sample Depth (mbegl) Note 1	Organic Matter Content (%)
BH PTS005	0.40	9.50
Notes: 1. mbegl – metres below existing ground level.		

Test Results – Bedrock

4.4.149 Bedrock was encountered beneath the PTS section of Package B as a reddish brown fine to coarse sandstone, belonging to the Penrith Sandstone Formation discussed in section 4.3. For the purposes of reporting, bedrock has been classified as PS or PS_W. PS refers to fresh, generally unweathered strata, and PS_W refers to weathered strata. Table 4-77 below provides a summary of where the PS and PS_W units were encountered.

Table 4-77 : PS and PS_W - Exploratory Holes

Exploratory Hole	Depth Range (mbegl) Note 1	Typical Description(s)
Boreholes		PS_W: Zone of Core Loss (ZCL) Driller's description - Red brown sandstone. Zone of Core Loss (ZCL) - Weak reddish brown SANDSTONE. (Driller's description - no recovery) PS: Weak locally medium strong partially unweathered thinly laminated reddish brown fine to coarse SANDSTONE. Fractures are very closely spaced near horizontal bedding parallel planar smooth open with reddish brown sand infill. Rarely non-intact. Bedding is at 0deg. Weak to medium strong locally strong partially unweathered thinly laminated reddish brown fine to coarse grained SANDSTONE. Occasional very closely spaced grey laminations up to 1mm thick. Localised subvertical irregular veining of strong light grey sandstone. Fractures are closely spaced near horizontal to inclined planar smooth occasionally rough to stepped rough open with reddish brown sand infill. Locally non intact. Weak locally very weak distinctly weathered thinly laminated reddish brown fine to coarse grained SANDSTONE. Occasional very closely spaced grey laminations up to 1mm thick. Fractures are very closely spaced near horizontal planar smooth occasionally rough open with reddish brown sand infill. Locally non-intact.
BH PTS005, BH PTS007, BH PTS008, BH PTS010, BH PTS011, BH PTS017, BH PTS018	PS_W: 4.10 – 8.50 PS: 5.10 – 15.25	
Notes: 1. mbegl – metres below existing ground level		

4.4.150 The descriptions for PS_W and PS in Table 4-77 are typical. Generally respectively described as core loss or as a weak to medium strong Sandstone. In particular, the rock mass and rock

indices will control the strength properties of both units. This is discussed later in the 'Derived Parameters' section for the PS_W and PS units.

4.4.151 Laboratory testing was limited to the PS unit, on account of core recovery. The testing undertaken was limited to Point Load Strength Index, in part due to sample size of intact core recovered. However, those reported are provided in the following charts and tables, with relevant explanation and discussion.

4.4.152 Rock indices; total core recovery (TCR), solid core recovery (SCR) and rock quality designation (RQD), along with fracture index (FI) were recorded for all core samples recovered from each borehole detailed in Table 4-77. Each rock index was reported in accordance with the guidelines set out in BS 5930 (10). Rock indices TCR, SCR and RQD are summarised in Table 4-78 below and fracture index in Table 4-79.

Table 4-78 : PS_W & PS - Rock Indices

Exploratory Hole	Core Top (m begl) Note 1	Core Bottom (m begl) Note 1	Total Core Recover, TCR (%)	Solid Core Recovery, SCR (%)	Rock Quality Designation, RQD (%)
BH PTS005	6.00	6.50	0.00	0.00	0.00
BH PTS005	6.50	7.50	100.00	100.00	0.00
BH PTS005	7.50	9.00	100.00	92.00	55.00
BH PTS005	9.00	10.50	83.00	78.00	0.00
BH PTS007	5.00	5.50	0.00	0.00	0.00
BH PTS007	5.50	6.50	90.00	66.00	0.00
BH PTS007	6.50	8.00	70.00	57.00	0.00
BH PTS007	8.00	9.50	73.00	62.00	0.00
BH PTS007	9.50	10.00	0.00	0.00	0.00
BH PTS008	6.50	7.30	0.00	0.00	0.00
BH PTS008	7.30	8.00	0.00	0.00	0.00
BH PTS008	8.00	8.75	60.00	33.00	13.00
BH PTS008	8.75	9.50	60.00	39.00	0.00
BH PTS008	9.50	10.30	0.00	0.00	0.00
BH PTS010	4.10	5.10	0.00	0.00	0.00
BH PTS010	5.10	5.85	100.00	84.00	0.00
BH PTS010	5.85	6.60	64.00	45.00	19.00
BH PTS010	6.60	8.10	67.00	61.00	0.00
BH PTS010	8.10	8.85	87.00	77.00	15.00
BH PTS010	8.85	9.60	93.00	88.00	0.00
BH PTS010	9.60	10.20	100.00	9.00	0.00
BH PTS011	6.00	7.00	100.00	88.00	0.00
BH PTS011	7.00	8.50	88.00	81.00	7.00
BH PTS011	8.50	10.00	80.00	75.00	8.00
BH PTS011	10.00	10.75	0.00	0.00	0.00
BH PTS011	10.75	11.50	0.00	0.00	0.00
BH PTS011	11.50	12.25	0.00	0.00	0.00
BH PTS011	12.25	13.00	76.00	52.00	13.00
BH PTS011	13.00	13.75	0.00	0.00	0.00
BH PTS011	13.75	14.5	100.00	81.00	0.00
BH PTS011	14.50	15.25	100.00	89.00	29.00
BH PTS017	6.00	7.00	0.00	0.00	0.00
BH PTS017	7.00	8.00	0.00	0.00	0.00
BH PTS017	8.00	8.50	0.00	0.00	0.00
BH PTS017	8.50	9.25	100.00	32.00	0.00
BH PTS017	9.25	10.75	90.00	13.00	0.00
BH PTS017	10.75	12.25	100.00	21.00	7.00
BH PTS017	12.25	13.75	63.00	48.00	21.00
BH PTS017	13.75	15.25	83.00	17.00	0.00
BH PTS018	7.00	7.75	0.00	0.00	0.00
BH PTS018	7.75	8.80	90.00	8.00	0.00

Exploratory Hole	Core Top (m begl) Note 1	Core Bottom (m begl) Note 1	Total Core Recover, TCR (%)	Solid Core Recovery, SCR (%)	Rock Quality Designation, RQD (%)
BH PTS018	8.80	10.30	100.00	88.00	0.00
BH PTS018	10.30	11.80	100.00	90.00	7.00
BH PTS018	11.80	13.30	100.00	82.00	0.00
BH PTS018	13.30	14.80	100.00	93.00	0.00
Range	-	-	**0.00 – 100.00**	**0.00 – 93.00**	**0.00 – 55.00**

Notes:
1. m begl = metres below existing ground level

Table 4-79 : PS - Fracture Index (spacing)

Exploratory Hole	Core Top (m begl) Note 1	Core Bottom (m begl) Note 1	Fracture Max Note 2	Fracture Min Note 2	Fracture Average Note 2
BH PTS005	6.50	10.25	140.00	NI	70.00
BH PTS007	5.50	6.50	130.00	NI	55.00
BH PTS007	6.95	8.00	110.00	NI	47.00
BH PTS007	8.40	9.50	80.00	NI	52.00
BH PTS008	8.30	8.75	100.00	NI	50.00
BH PTS008	9.10	9.50	90.00	NI	48.00
BH PTS010	5.10	6.33	140.00	NI	36.00
BH PTS010	7.10	10.20	110.00	NI	37.00
BH PTS011	6.00	9.70	120.00	10.00	61.00
BH PTS011	12.25	12.82	90.00	NI	45.00
BH PTS011	13.75	15.25	110.00	NI	67.00
BH PTS017	8.50	9.52	40.00	NI	20.00
BH PTS017	9.52	10.75	50.00	NI	NI
BH PTS017	10.75	11.54	NI	NI	NI
BH PTS017	11.54	11.89	NI	NI	NI
BH PTS017	11.89	12.25	110.00	NI	40.00
BH PTS017	12.25	12.75	-	-	-
BH PTS017	12.75	14.40	110.00	NI	50.00
BH PTS017	14.40	15.25	52.00	NI	20.00
BH PTS018	7.75	14.80	110.00	0.00	45.00

Notes:
1. m begl = metres below existing ground level.
2. No values represent assessed zone of core loss (azcl).

4.4.153 Selected samples were identified from the rock core obtained within the PS_W and PS units for point load index testing (28). The fracture spacing and RQD limited collection of suitable samples with the required core diameter to solid core length ratio for unconfined compressive strength (UCS) testing. As described in section 4.2.39 the UCS has been calculated using the standard correlation, UCS = k * $I_{s\,(50)}$ where; k=10 for mudstone and k=20 for sandstone and conglomerate. Table 4-80 provides a summary of the point load index (I_{s50}) test results and associated UCS correlation with depth and the type of test reported; axial (A), diametral (D), or irregular (I).

Table 4-80 : PS_W and PS - Point Load Strength Index ($I_{s\,(50)}$) and Correlated $I_{s\,(50)}$ UCS Results

Exploratory Hole	Geology Code	Sample Depth (m begl) Note 1	Type of Test Note 2	$I_s(50)$	Correlated UCS Note 3 (MPa)
BH PTS005	PS	7.09	D	0.04	0.80
BH PTS005	PS	7.09	A	0.18	3.60
BH PTS005	PS	8.04	A	0.20	4.00
BH PTS005	PS	8.04	A	0.12	2.40
BH PTS005	PS	8.14	D	0.03	0.60

BH PTS005	PS	8.14	A	0.36	7.20
BH PTS005	PS	8.36	D	0.04	0.80
BH PTS005	PS	8.36	A	0.23	4.60
BH PTS005	PS	9.83	D	0.04	0.80
BH PTS005	PS	9.83	A	0.08	1.60
BH PTS005	PS	10.13	D	0.03	0.60
BH PTS005	PS	10.13	A	0.16	3.20
BH PTS007	PS	7.85	D	0.02	0.40
BH PTS007	PS	7.85	A	0.19	3.80
BH PTS007	PS	8.78	D	0.03	0.60
BH PTS007	PS	8.78	A	0.15	3.00
BH PTS008	PS	8.50	D	0.03	0.60
BH PTS008	PS	8.50	A	0.05	1.00
BH PTS008	PS	8.69	A	0.16	3.20
BH PTS008	PS	8.69	I	0.04	0.80
BH PTS008	PS	9.31	A	0.08	1.60
BH PTS008	PS	9.31	I	0.00	0.00
BH PTS008	PS	9.41	D	0.02	0.40
BH PTS008	PS	9.41	A	0.05	1.00
BH PTS010	PS	5.48	A	0.08	1.60
BH PTS010	PS	5.48	I	0.00	0.00
BH PTS010	PS	6.16	A	0.11	2.20
BH PTS010	PS	6.16	I	0.03	0.60
BH PTS010	PS	7.29	A	0.05	1.00
BH PTS010	PS	7.29	I	0.01	0.20
BH PTS010	PS	8.30	D	0.05	1.00
BH PTS010	PS	8.30	A	0.15	3.00
BH PTS010	PS	8.89	D	0.03	0.60
BH PTS010	PS	8.89	A	0.13	2.60
BH PTS011	PS	7.67	D	0.01	0.20
BH PTS011	PS	7.67	A	0.06	1.20
BH PTS011	PS	8.98	A	0.12	2.40
BH PTS011	PS	8.98	A	0.05	1.00
BH PTS011	PS	12.4	D	0.03	0.60
BH PTS011	PS	12.4	A	0.17	3.40
BH PTS011	PS	14.71	D	0.02	0.40
BH PTS011	PS	14.71	A	0.17	3.40
BH PTS017	PS_W	12.14	D	0.06	1.20
BH PTS017	PS_W	12.14	A	0.07	1.40
BH PTS017	PS_W	13.11	D	0.27	5.40
BH PTS017	PS_W	13.11	A	0.19	3.80
BH PTS017	PS_W	13.53	D	0.07	1.40
BH PTS017	PS_W	13.53	A	0.23	4.60
BH PTS018	PS	9.70	A	0.35	7.00
BH PTS018	PS	9.70	A	0.13	2.60
BH PTS018	PS	9.70	A	0.33	6.60
BH PTS018	PS	11.23	D	0.02	0.40
BH PTS018	PS	11.23	A	0.26	5.20
BH PTS018	PS	11.23	A	0.24	4.80
BH PTS018	PS	11.23	A	0.22	4.40
BH PTS018	PS	11.23	A	0.09	1.80
Range	**-**	**-**	**-**	**0.00 – 0.36**	**0.00 – 7.20**

Notes:
1. m begl = metres below existing ground level.
2. Test type: A = Axial, D = Diametral, I = Irregular
3. Correlate UCS value derived from k = 20.

Derived Parameters – Introduction

4.4.154 The following section provides a review of each of the principal geological units present within the route corridor. Its purpose is to summarise the results of the in situ and laboratory tests undertaken in the 2021 GI and to derive ranges of relevant engineering parameters to guide decisions in future geotechnical design of earthworks and foundations for structures. Where known correlations are helpful, values are derived from them and presented together with

values determined directly by in situ or laboratory tests. Each geological unit is considered in turn and a summary of parameters and ranges is provided for each.

4.4.155 Going forward, the detailed design stage, in development of the Geotechnical Design Report(s), will likely use these summary parameters as a basis for characteristic values for design, appropriate to the design scenarios and use cases that apply to each particular design, whether for earthworks, structures or other relevant geotechnical application, for example reinforced soil.

Derived Parameters – TOPSOIL

4.4.156 Topsoil was encountered widely across Package B from ground level to around 0.30m begl, with localised thickening to 1.20m. The TOPSOIL was recorded as either a sandy gravelly Clay or a Sand with rootlets. This geological unit was not subject to significant in situ or laboratory testing on the basis that the material would be stockpiled for re-use as topsoil on the completed earthworks. The only testing undertaken was a single in situ Plate bearing test and two laboratory organic matter tests. Derived parameters have not been assessed for this material on this basis. However, the extents of the TOPSOIL are discussed in the following Engineering Appraisal section.

Derived Parameters – MG_CO (Made Ground Cohesive)

4.4.157 Cohesive made ground (MG_CO) was encountered at a number of locations within both sections of Package B, down to a recorded depth of 3.55m begl. The engineering descriptions presented on the exploratory hole logs are that of reworked cohesive glacial till. Limited in situ and laboratory testing has been reported for this geological unit, so it follows that the parameters derived for cohesive glacial till can be reasonably used in the areas where this material is found. Refer to Derived Parameters – Cohesive Glacial Till section which follows.

Derived Parameters – MG_GR (Made Ground Granular)

4.4.158 This geological unit was encountered across the extents of Package B, generally a shallow depth and was generally encountered as reworked granular tills and as part of existing road construction, present as sub-base, capping and drainage layers below road pavements and beneath footpaths. This anthropogenic material should be expected anywhere that human development exists. Excavation of these areas is likely to produce materials that will be acceptable ‘as dug’ for general fill in accordance with the SHW.

4.4.159 Given the likely origin of these materials is local fluvioglacial and granular glacial tills, it follows that the parameters derived for those materials can be reasonably used in the areas where this material is found. Refer to *Derived Parameters - Granular Glacial Till* section which follows.

Derived Parameters - Granular Glacial Till

4.4.160 This section combines the various granular tills (GT_S and FL_GT) as they are derived from the same geological sources and will all exhibit similar behaviour, being materials which drain readily and have frictional strength characteristics. The above Made Ground Granular unit has been incorporated as this will exhibit similar behaviours.

4.4.161 From the 2021 GI Factual Report, the following table provides a summary of relevant derived parameters for design for Granular Glacial Till.

4.4.162 The range of in situ tests included Standard Penetration Tests. Given the methodology described in section 4.2, the referenced correlation between SPT N value and effective angle of internal friction has also been used to derive values for comparison with those determined directly from laboratory shearbox testing. For the range of SPT N_{60} values determined for the granular glacial till (4 to 74), the relationship indicates corresponding effective internal angle of friction in the range 25° to 44°.

Table 4-81 : Granular Glacial Till - Derived Parameter Summary

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived Value
Bulk Density	Shearbox	Mg/m3	1.63 – 2.33	1.99	2.00
	BS8002	kN/m3 Mg/m3	18.00 – 23.00 1.70 – 2.30	20.50 2.05	20.00 2.00
Dry Density	Shearbox	Mg/m3	1.52 – 2.13	1.79	1.80
Internal Angle of Friction phi' **Note 1**	Shearbox	degrees	22 – 50	36	34
	Peck et al (SPT N)	degrees	25 – 44	41	35
Maximum Dry Density & Moisture Content	Standard Compaction (2.5kg)	Mg/m3 %	1.78 – 2.18 6.30 – 16.00	**Note 2**	2.00 7.00 – 12.00
Moisture Condition Value (MCV) & Moisture Content	MCV Test	Value %	0.00 – 14.40	**Note 3**	2.70 – 14.40 6.30 – 16.00
Permeability	Infiltration Tests BRE DG365	m/s	N/A	-	**Note 4**
Subgrade Surface Modulus (SSM)	Lightweight Deflectometer	MPa	10.48 – 72.82	**Note 5**	-
California Bearing Ratio	CBR Equivalent CBR from Plate Bearing Test	%	9.60 – 73.00 17.00 – 47.00	28.00 33.00	18.00 20.00
Sulfate/pH	BRE SD1	mg/l pH units	10 – 23 6.30 – 8.40	N/A	<50 6.00 – 8.50
TYPICAL MATERIAL DESCRIPTIONS:					
MADE GROUND: Grass over dark brown gravelly slightly clayey fine to coarse SAND with low cobble content. Gravel is angular to subrounded fine to coarse of sandstone, limestone, brick, and tarmac fragments. Cobbles are subangular of limestone. (Reworked Topsoil) MADE GROUND: Brown sandy clayey GRAVEL with low cobble content and low boulder content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of mixed lithologies including asphalt. Cobbles and boulders are subangular of asphalt.					

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived Value
Medium dense light grey/multicoloured slightly clayey slightly sandy angular to rounded fine to coarse GRAVEL of sandstone, siltstone, mudstone with low cobble content. Sand is predominantly coarse. Cobbles are subrounded of sandstone. Light brown clayey fine to coarse SAND and GRAVEL with low cobble content. Gravel is subangular to rounded fine to coarse of mixed lithologies including mudstone, granite, psammite, quartzite, phyllite and limestone. Cobbles are subangular to subrounded of mixed lithologies including chlorite up to 150mm. Medium dense brown slightly clayey gravelly fine to coarse SAND with low cobble content. Gravel is subangular to subrounded fine to coarse of mixed lithologies. Cobbles are subrounded of mixed lithologies.					
Notes: 1. Complementary values of apparent cohesion have been discounted. 2. A single mean value is not justified as a range of moisture contents and dry densities are likely to provide acceptable levels of compaction in the field. 3. A single mean value is not justified as a range of moisture contents and corresponding MCV values are likely to relate to the range of acceptable dry densities determined by compaction trials. However, for the 6.30% - 16.00% moisture content range in the compaction tests, corresponding MCV values are in the 2.70 – 14.40 range. 4. BRE 365 Soakaway testing undertaken did not witness drainage of water from each test pit sufficiently to achieve an infiltration rate. Soakaway drainage may not be a viable solution. 5. Subgrade Surface Modulus obtained from lightweight deflectometer was undertaken at two test locations, maximum and minimum results reported only. Further investigation will be undertaken in the next phase of ground investigation.					

Derived Parameters – Cohesive Glacial Till

4.4.163 This section combines the various cohesive tills (GT_V and GT_CO) as they are derived from the same geological sources and will all exhibit similar behaviour, being materials of very low permeability which drain slowly and hence have both undrained and drained strength characteristics. Cohesive made ground on the whole comprises reworked cohesive glacial till, and will behave in a similar manner to the GT_CO and GT_V units, as such the results are included.

4.4.164 From the 2021 GI Factual Report, the following table provides a summary of relevant derived parameters for design for Cohesive Glacial Till.

4.4.165 The range of in situ tests included Standard Penetration Tests. Given the methodology described in section 4.2, the referenced correlation between SPT N value and undrained shear strength has also been used to derive values for comparison with those determined directly from laboratory triaxial testing.

Table 4-82 : Cohesive Glacial Till - Derived Parameter Summary

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Bulk Density	Triaxial	Mg/m3	2.10 – 3.01	2.25	2.10
	BS8002	kN/m3 Mg/m3	16.00 – 22.00 1.60 – 2.20	20.00 2.00	20.00 2.00
Dry Density	Triaxial	Mg/m3	1.86 – 2.65	2.00	1.90
Undrained Shear Strength	Triaxial **Note 1**	kPa	10 – 201	69	40 – 75
	Stroud f1 = 5 for PI 20	kPa	12 – 246	138	

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
	Range N60 2 to 74 **Note 2**				
	Hand Shear Vane Peak Residual	kPa	9 – 93 5 – 33	44 17	
Apparent Effective Internal Angle of Friction phi' Constant Volume Internal Angle of Friction **Note 3**	Triaxial BS8002	degrees degrees	23.50 – 37.50 24.00 – 34.00	31.49 27.00	28.00
Maximum Dry Density & Moisture Content **Note 4**	Standard Compaction (2.5kg)	Mg/m3 %	1.98 – 2.09 8.30 – 11.00	2.03 8.30 – 11.00	2.00 8.30 – 11.00
Moisture Condition Value (MCV) & Moisture Content	MCV Test **Note 5**	Value %	0.00 – 14.60 5.20 – 38.00	7.50 12.11	5 - 10 6 - 14
Coefficients of Compressibility Mv & Cv	1-D Consolidation Test	m^2/MN m^2/yr	0.041 – 0.43 4.40 – 12.00	**Note 6**	-
Permeability **Note 7**	Infiltration Tests BRE DG365	m/s	N/A	-	-
Subgrade surface modulus	Lightweight Deflectometer	MPa	10.20 – 78.36	32	30
Sulfate/pH **Note 8**	BRE SD1	mg/l pH units	10.00 – 120.00 6.50 – 9.90	22 7.80	<50 6.00 – 10.00

TYPICAL MATERIAL DESCRIPTIONS:

Reddish brown and yellow slightly gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse grey sandstone, mudstone, and quartzite.
Orangish brown very gravelly clayey fine to coarse SAND with low cobble content.
Firm brown yellowish brown and grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of mixed lithologies. Cobbles are subangular to subrounded of mixed lithologies.
Firm dark reddish brown mottled black slightly gravelly sandy CLAY with occasional pockets of yellowish grey fine to coarse sand up to 8mm. Gravel is subangular to subrounded fine to coarse of sandstone, volcaniclastic sandstone and mudstone.

Notes:
1. A very wide range of undrained shear strength results were obtained from laboratory testing. There was no obvious concentration around a value that might be considered a mean value, however sufficient results were in excess of 40kPa to classify the materials medium strength (BS5930). The corresponding range from BS5930 is 40kPa to 75kPa, which has been adopted.
2. Undrained shear strength correlation with SPT N60 results provides a wide range of results. Within this range a significant portion relate to SPT N refusal results (N = 50). Related N_{60} results have been removed from the assessment.
3. Triaxial results invariably included an apparent cohesion, which is generally an artefact of testing and dissipates over the longer term. It is generally accepted that this should be ignored, and the angle of internal friction alone provides the strength. Based on the range of results a suitable conservative derived value of 28 degrees has been adopted.

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
4. Provision of a single mean value is not realistic given the wide ranging results. Removing the extreme low and high values does suggest maximum dry density around 2.0Mg/m3 and moisture content in the range 8.3% to 11%. 5. A single mean value is not justified as a range of moisture contents and corresponding MCV values are likely to relate to the range of suitable dry densities determined by compaction trials. However, for the 6% - 14% moisture content range in the compaction tests, corresponding MCV values are in the 5 – 10 range. 6. Only two tests were reported, unable to develop a derived value or range. Further testing will be required to develop these parameters. 7. The cohesive nature of the in situ soils prevented infiltration of water, with no infiltration value obtained. Soakaway drainage may not be viable. 8. Values of sulfate and corresponding pH are generally in the range stated, with extreme values deemed outliers.					

Derived Parameters - SAND

4.4.166 From the 2021 GI Factual Report, the following table provides a summary of relevant derived parameters for design for granular SAND unit.

4.4.167 The range of in situ tests included Standard Penetration Tests. Given the methodology described in section 4.2, the referenced correlation between SPT N value and effective angle of internal friction has also been used to derive values for comparison with those determined directly from laboratory shearbox testing. For the range of SPT N60 values determined for the SAND (1 to 50), the relationship in Figure 4-2 indicates corresponding effective internal angle of friction in the range 37.00 to 43.00 degrees.

Table 4-83 : SAND - Derived Parameter Summary

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Bulk Density	Shearbox	Mg/m^3	2.03	-	**Note 1**
	BS8002	kN/m^3 Mg/m^3	17.00 – 22.00 1.70 – 2.20	19.50	20.00 kN/m^3
Dry Density	Shearbox	Mg/m^3	1.83	-	**Note 1**
Internal Angle of Friction phi' **Note 2**	Shearbox	degrees	32.00	**Note 2**	
	Peck et al (SPT N)	degrees	37.00 – 43.00	41.00	35.00
Maximum Dry Density & Moisture Content	Standard Compaction (2.5kg)	Mg/m^3 %	1.88 – 1.94 9.20 – 12.00	**Note 3**	-
Moisture Condition Value (MCV) & Moisture Content	MCV Test	Value %	6.00 – 6.50 12.00 – 14.00	**Note 4**	-
Permeability	Infiltration Tests BRE DG365	m/s	N/A **Note 5**	-	-
TYPICAL MATERIAL DESCRIPTIONS:					
Extremely weak reddish brown slightly gravelly SANDSTONE recovered as slightly gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse of extremely weak reddish brown sandstone. (Possible weathered bedrock).					

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Medium dense reddish brown slightly gravelly clayey fine to coarse SAND. Gravel is subangular to rounded fine to coarse of mixed lithologies including sandstone, limestone, and slate and siltstone. Very dense reddish brown slightly gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse of red sandstone					
Notes: 1. Only a single test determination was reported. 2. Only a single Shearbox test was performed. Complementary values of apparent cohesion have been discounted. Derived values developed solely on correlated SPT results only. 3. A single mean value is not justified, only two tests were reported. 4. A single mean value is not justified only two tests were reported. 5. No testing reported; however, a clayey, gravelly sand mixture, 1.00 x 10-5 m/s is typical **(31)**.					

Derived Parameters – ALV

4.4.168 From the 2021 GI Factual Report, the derivation of parameters for the ALV unit is limited by the minor occurrence of this geological unit during the ground investigation in two locations BH PTS005 and BH PTS008. Derived Parameters are not presented, refer to Test Results – ALV section for data.

Derived Parameters – Bedrock

4.4.169 From the 2021 GI Factual Report, the following table provides a summary of relevant derived parameters for design for the bedrock unit. As described earlier, bedrock encountered is sandstone of the Penrith Sandstone formation. Other geological formations, namely Stainmore Formation and the Alston Formation were indicated by the PSSR (3), but not reported during the 2021 GI.

Table 4-84 : Bedrock - Derived Parameter Summary

Parameter or Property	Source (Test Results or Correlation)	Unit	Range	Mean	Derived value
Point Load Index	$I_{s(50)}$ correlated UCS (Sandstone)	MPa	0.00 – 7.20	**Note 1**	0.60 – 4.00
TYPICAL MATERIAL DESCRIPTIONS:					
Extremely weak to very weak thinly laminated partially unweathered reddish brown fine to coarse SANDSTONE with rare light brown clasts of sandstone. Fractures are very closely spaced near horizontal planar smooth open with reddish brown sand infill. Locally non-intact. Weak locally medium strong partially unweathered thinly laminated reddish brown fine to coarse SANDSTONE. Occasional very closely spaced thin dark grey laminations. Fractures are extremely closely to closely spaced bedding parallel planar smooth open with reddish brown sand infill. Bedding 0deg to 2deg. Locally non-intact. Zone of No Recovery (ZNR) - driller notes weathered SANDSTONE.					
Notes: 1. Wide spread of results is presented for equivalent UCS; however, there is a distinct concentration of results <1 MPa and may be classed as extremely weak in accordance with BS 5930, therefore a range of 0.60 – 4.00 MPa has been arrived at.					

4.5 Ground Summary

4.5.1 From the foregoing review of test results and derivation of parameters, the summary of the ground (materials and derived parameters) for the project area between M6J40 and Temple

Sowerby can be assessed. The ground model considers the whole area within the scheme section limits, between these project limits, while the corresponding impacts on the individual schemes are considered separately in the Engineering Assessment in section 9 of this report.

M6 Junction 40 to Kemplay Bank Roundabout

4.5.2 Longitudinal geological sections listed in Table 1-1 are provided in Appendix A. These are provided with the corresponding proposed earthworks and there are 4 sheets relating to the M6J40 to Kemplay Bank Roundabout section. There are 9 corresponding structures drawings. In the following sections, the earthworks locations will be referred to as “Sheet X of 4” for simplicity, commencing with Sheet 1 of 4. The structures will be referred to by their name.

4.5.3 The new route commences from the western approach of the A66 to the M6 Junction 40 at scheme chainage Ch. 9 101m. Widening of the east bound A66 carriageway between Ch.9 101m and Ch. 9 480m involves widening of the eastbound carriageway to form of a low depth cut slope into cohesive glacial deposits with a slope gradient of 1v:3h. The short and long term stability of the slope may be assessed from the parameters listed in Table 4-82. The corresponding southern A66 earthworks (west bound from the M6J40 roundabout) form low height embankment construction, similarly upon cohesive glacial deposits.

4.5.4 The route alignment on the M6J40 roundabout will effectively remain unchanged, with exception of dedicated left turn third lane accommodations. The earthworks consist of cut slopes of shallow depth into cohesive glacial till and embankments upon similar. The stability of each should be accommodated by the parameters presented in Table 4-82. The associated access and egress junctions of the M6J40 roundabout, while not part of the mainline alignment, form part of the scheme and will be widened accordingly to accommodate the lane requirements on the roundabout proper. On the whole, each on and off slip for the M6 motorway will be widened at this junction. The widening will involve slope crest widening leading down to the motorway verges. The widening will predominantly comprise embankment construction bar the construction of two retaining walls; Retaining Wall 101 and 103 (Table 1-1).

4.5.5 Retaining wall R101 will comprise two gravity retaining walls supporting the cut slope above the M6 Junction 40 southbound off ramp. The walls are approximately 4m retained height, with expected formation on cohesive glacial till. The stability of the wall should be satisfied on the basis of the derived parameters summarised in Table 4-82. Retaining wall R103 is located to retain part of the M6 Junction 40 southbound on ramp to the M6, immediately west of Skirsgill Depot. Expected formation for R103 is within cohesive glacial till.

4.5.6 Following the A66 east from M6J40 the new westbound carriageway is to be supported on widened embankment above Skirsgill Depot, scheme chainage Ch.9 840m to Ch.9 970m. Space restrictions between the depot boundary and the A66 require the embankment slope to be retained or reinforced. The current preferred form is by a structural wall, referred to as

R102 in the drawings listed in Table 1-1. Exploratory Holes, SD M6J40.005, SD M6J40.005a and BH M6J40.005-2 indicate ground conditions supporting the wall will be cohesive glacial till, with strength parameters summarised in Table 4-82. Each retaining wall is discussed further within the Engineering Assessment.

4.5.7 East of retaining wall R102 is the new access to Skirsgill Depot from the westbound A66 at Ch. 10 070m, Sheet 2 of 4. This access shall be constructed initially on embankment before transitioning to cut slopes in combination with embankment as it leads into Skirsgill depot. The geology is expected to be cohesive glacial till based on the reported exploratory holes SD M6J40.005, SD M6J40.005a and BH M6J40.005-2. Site specific data is not available for the access road, however this will be assessed as part of the next phase of investigation.

4.5.8 Immediately east of the Skirsgill Depot access from Ch.10 092m to Ch.10 460m, Sheet 2 of 4, the westbound A66 will be formed on a south facing embankment approximately 4m height. The eastbound A66 will generally be on low height embankment, typically 2 metres height. The expected geology underlying this earthwork is granular glacial till. From the parameters presented in Table 4-81, it is anticipated that long term stability of this slope should be satisfied for proposed side slopes at 1V:3H. Further clarification of the ground conditions is required between the above chainages and will be assessed during the next phase of ground investigation.

4.5.9 The area to the south of this embankment will be utilised for SuDs pond drainage management either by soakaway or attenuation. There is potential for this area to be utilised as a borrow pit facilitating construction sequencing of Kemplay Bank Roundabout. SuDs drainage is discussed later in this section. The pond in this location is anticipated to be within granular glacial till deposits and the excavated material is expected to be acceptable for re-use. The potential for re-use shall be considered during the next phase of ground investigation.

4.5.10 East of Ch.10 460m the A66 approaches Kemplay Bank Roundabout, forming a proposed underpass through the current roundabout. The geology is expected to be fluvial – glacial deposits as shown on Sheets 2 of 4 and 3 of 4. The underpass forms cut slopes leading down from the roundabout with an elevation difference of up to approximately 9 metres. The western approach to the roundabout between approximate Ch.10 610m and Ch.10 800m and the eastern exit between Ch.10 870m and Ch.11 080m will be partially retained or reinforced. The side slopes between Ch.10 800m and Ch.10 870m will be at 1v:3h gradient. The short and long term stability of the side slopes and slope reinforcement measures are anticipated to be satisfactory. The excavated material is likely to comprise granular glacial deposits of fluvial-glacial origin. The granular nature of these soils is expected to be suitable for re-use.

4.5.11 Groundwater is unlikely to affect construction or long term stability of the underpass, recorded some 6 metres below formation, although localised seepages may impact construction requiring temporary intervention with counterfort drains or similar. The Groundwater section

below provides further detail. The above points are discussed further within the Engineering Assessment.

4.5.12 Above the A66 the Kemplay Bank Roundabout (KBR) will be formed by two bridges crossing the A66, referred to as Kemplay Bank West Bridge and Kemplay Bank East Bridge at respective chainages, Ch.10 760m and Ch.10 900m. The foundations for each bridge are expected to be formed within granular glacial deposits. Groundwater is expected to be well below abutment formation level and is not expected to require specialist temporary works considerations over those readily expected for such activities. The foundations are discussed further in section 9 below.

4.5.13 The A66 emerges from the KBR underpass relatively steeply onto embankment between Ch.10 920m and Ch.11 380m passing over the Carleton Hall Underpass at Ch.11 120m, which forms dedicated traffic and pedestrian access to Cumbria Constabulary and Penrith Community Fire and Ambulance Stations. The new A66 will involve widening of the underpass to the north. Exploratory hole BH KBR012 located some 200m east, indicates the underlying geology to comprise granular glacial deposits, with groundwater at depth. The adjacent embankment earthworks are expected to be the order of up to 6 metres in height. Further ground investigation is expected in the area to allow more detailed assessment of the proposals.

4.5.14 Between chainages Ch. 11 380m and Ch. 11 611m (section end) the east bound A66 will be formed within cut slopes of up to around 2.5m depth. The proposed 1v:3h gradient is considered to be acceptable for the material properties identified in Table 4-81 to provide long term stability and minimum maintenance requirements. It may be that during construction localised perched groundwater may present, but should be easily accommodated during this period with temporary drainage measures. Further investigation of the cut slopes will be considered as part of the phase 2 ground investigation scoping.

Penrith to Temple Sowerby

4.5.15 Longitudinal geological sections listed in Table 1-1 are provided in Appendix A. These are provided with the corresponding proposed earthworks and there are 7 sheets relating to the Penrith to Temple Sowerby section. There are 8 corresponding structures drawings. In the following sections the earthworks will be referred to as “Sheet X of 7” for simplicity, commencing with Sheet 1 of 7. The structures will be referred to by their name.

4.5.16 The new Penrith to Temple Sowerby route commences from chainage Ch. 20 000m east on shallow embankment until Ch. 20 140m, transitioning eastbound with removal of material from existing cut slopes up to around 8 metres in depth, to accommodate a new overpass structure at Ch. 20 385m, referred to as Brougham Accommodation Bridge. Continuing east a left off, left on junction at Ch. 20 600m provides access to a waste water treatment plant. This junction combines cut and embankment earthworks at the A66 interface. Westbound on the A66 at

Ch. 20 195m a new left off, left on junction connecting the A66 with the B6262 is proposed generally on low height embankment, leading off to the southwest. The underlying geology is a combination of cohesive and granular glacial till. The parameters presented in Table 4-81 and Table 4-82 will accommodate the cut slopes and support embankments. The excavated material is likely to be acceptable for re-use as fill. Material re-use is discussed later in Section 9.

4.5.17 Two retaining walls, RW301 and RW 302 retaining heights of 2.5 and 2.9 metres respectively are located west of the wwTW access. Retaining Wall RW301 is located eastbound between Chainages Ch. 20 480m and Ch. 20 520, while RW302 is located westbound between Chainages Ch. 20 550m and Ch. 20 595m. RW301 is required to accommodate overhead and buried utilities at the beginning of the eastbound offslip for the side road access junction at Ch.20 600m, while RW302 will accommodate the existing slip from the former Lhama Karma Kafe.

4.5.18 At Ch. 21 620m the PSSR (3) identified the presence of the buried North Western Ethylene Pipeline (NWeP) operated by Shell. This pipeline passes beneath the current A66 in a north south direction at the junction discussed in sections 4.5.19 and 4.5.21, west of the former Lama Karma Kafe. The pipeline is currently protected by a slab and understood to be reinforced with a sleeve. The new works will incorporate a new protective cover slab constructed to Shell specifications. Two trial pits excavated during the 2021 GI are located in the general vicinity of the pipeline crossing. Additional archive trial pits excavated for the original crossing are available. Further discussion is included in section 9.3.6. While additional ground investigation is planned, detailed design and construction will also need to determine specific information in conjunction with the asset owner.

4.5.19 From the junction at Ch. 20 600m widening of the proposed A66 continues east and will generally be on alternating low to medium height embankment and cut slopes, generally not exceeding 4 metres height or depth, before building up from Ch. 21 500m towards the new Whinfell Park Accommodation Bridge at Ch. 22 090m. At Ch. 20 850m the Light Water Culvert will be extended to accommodate the new A66 (Sheets 2 and 3 of 7). The existing culvert is a concrete box section. The geology underlying this section of the route is detailed in the factual report by exploratory holes TP PTS005 to TP PTS006 and BH PTS005 and BH PTS006 (Sheet 2 of 7) to be dominantly granular glacial deposits. These deposits should be able to accommodate the widening of embankments and culvert extension. Proposed cut slopes will be at 1v:3h gradient. The new slopes within granular till are anticipated to be stable with limited seepage of ground water. Drainage of the cut slopes in this section is not expected to require specialist drainage measures, but may require temporary intervention during construction. Notwithstanding, crest and toe drainage is expected to control surface water run-off from the cut slopes to help maintain them in a dry condition. Groundwater in the vicinity

of the Light Water Culvert is expected to be shallow and may require temporary management during construction of the extension.

4.5.20 The approach to Whinfell Park Accommodation Bridge from Ch. 21 500m is generally on low height embankment, up to around 2 metres height. This is to accommodate the box culvert sections forming the new underpass structure at Ch. 21 915m. This underpass will provide local residential and agricultural access north and south of the A66. In addition, two left off, left on junctions (eastbound and westbound) will provide mainline access and egress to the A66 at Ch. 21 825m and Ch. 21 725m respectively (Sheets 2 and 3 of 4). The geology is anticipated to be a combination of granular and cohesive tills with properties summarised in Table 4-81 and Table 4-82. Long term settlement may be encountered under the embankments but it is likely that the magnitude of settlement will be manageable during the construction phase. The proposed embankments are anticipated to be stable in the long term. The excavated material from the underpass and approaches is likely to be acceptable for re-use. The proposed side slopes should be stable at the proposed 1v:3h gradient. Groundwater may be encountered below 3 metres depth within granular tills, but this is expected to be managed within the requirements of SHW Series 500.

4.5.21 East of Ch.22 000m the A66 carriageway will be formed within a cut up to around 2 metres depth until around Ch. 22 250m (Sheet 3 of 7). BH PTS012 indicates the cut slopes will comprise granular till over lying cohesive till at around 2 metres depth. At a gradient of 1v:3h the material properties should be able to accommodate long term stability. Groundwater is not expected at such shallow depth, however there may be localised perched groundwater within the granular tills. It is expected the majority of the excavated materials from the cut to be re-useable as fill. The formation surface is likely to be within cohesive till. Further investigation of formation conditions will be considered during the next phase of investigation.

4.5.22 East from Ch. 22 250m the new A66 will be built upon embankment of around 2 metres height (Sheets 3 and 4 of 7). This embankment is indicated to span a 1.5 metre wide drainage culvert (CUL-301) at Ch. 22 330m. The form of culvert is expected to be of box construction. Beyond this embankment the earthworks reduce to grade, shallow embankment and cut between Ch. 22 435m and Ch. 22 630m. The underlying geology is indicated by exploratory holes BH PTS013, TP PTS012 to TP PTS015 to be horizons of sandy cohesive till and granular till deposits and should be of sufficient strength to accommodate the embankment and drainage culvert proposals. Settlements that arise from the increased loading should dissipate fairly quickly given the granular nature of the underlying geology.

4.5.23 Beyond this, the A66 approach to the new Center Parcs Junction at Ch. 23 090m will be on embankment of up to around 10 metres in height, between Ch. 22 630m and Ch. 23 490m. The new A66 will pass above the Center Parcs access by way of an integral single span underbridge. In addition to the underpass, dedicated eastbound and westbound, left off and

left on junctions will connect the underpass with the A66 and the dedicated Center Parcs access road. The geology underlying the junction as reported by, BH PTS014, BH PTS015, WS PTS016 / A, BH PTS017, BH PTS018, BH PTS019 and TP PTS017 from the 2021 GI identify superficial geology to generally consist of sandy cohesive till and granular till soils, with localised cohesive till overlying weathered and unweathered Penrith Sandstone from around 6 metres depth. The cohesive till is identified within BH PTS019, east of the proposed junction at Ch. 23 270m. Groundwater is indicated to be within the Penrith Sandstone and is not expected to be encountered during construction of this junction. However, perched water within granular layers may be encountered and measures to manage this risk should be considered during detailed design. This may include crest and toe drains together with on-slope counterforts.

4.5.24 The parameters identified within Table 4-81, Table 4-82 and Table 4-83 should be sufficient to accommodate the long term stability of the embankments and the proposed bridge foundations. Some settlement will occur, however the general granular nature of the underlying soils should help keep settlements within tolerable limits and dissipate during the construction period. Staged construction of the embankments may help to manage the settlement risk. It is unlikely due to its depth that specialist measures will be required to manage groundwater during construction.

4.5.25 East of the Center Parcs Junction earthworks at Ch. 23 490m the A66 will be constructed in shallow depth cut before entering an area of deeper cut at Ch. 23 715m, as shown on Sheet 5 of 7. Exploratory holes TP PTS019 and TP PTS020 indicate the superficial geology between the above chainages, to consist of an initial layer of granular made ground over granular glacial till and cohesive glacial till. Groundwater strikes were not reported with the exception of localised seepages below 2m begl within TP PTS020. Short term mitigation may be required during construction of the proposed cut slopes to manage any groundwater flow. The shallow depth cut slopes should maintain long term stability on the basis of the shear strength parameters presented in Table 4-81 and Table 4-82, for the proposed 1v:3h gradient.

4.5.26 Across sheets 5 of 7 and 6 of 7, a significant length of cut slope is defined between Ch. 23 715m and Ch. 24 100m, where the proposed A66 widening extends north into the existing cut slope. The proposed cut slope is expected to around 4.50m depth, within cohesive glacial till horizons. An upper layer of granular till is indicated to be present locally. Groundwater is expected to be at depth below cut formation by some 5 metres. There may be localised perched groundwater bodies within granular sandy zones of the till. The 1v:3h slope gradients should be stable in the long term using the parameters presented in Table 4-82. The excavated materials are expected to be acceptable for re-use.

4.5.27 East of Ch. 24 100m the new A66 construction will be upon embankment until Ch. 24 295m as it crosses the Swine Gill Culvert at Ch. 24 250m, which will also be extended to

accommodate the carriageway widening. The underlying geology is expected to be cohesive till overlying granular till deposits. The cohesive deposits are indicated to be very sandy clay or very clayey sand.

4.5.28 Travelling east from Ch. 24 295m to scheme end at Ch. 25 238m the A66 alignment will be constructed upon sidelong ground of cut and fill earthworks up to a maximum depth and height of around 2 metres. The east bound carriageway will be predominantly on embankment while the westbound will be formed within cut. Locally, eastbound between Ch. 24 620m and Ch. 24 860m the A66 will be within cut. The underlying geology was reported from the 2021 GI (8) to comprise horizons of granular and cohesive glacial till. The derived parameters summarised in Table 4-81 and Table 4-82 suggest that cut slopes should be stable in the long term. The presence of phreatic groundwater within the areas of cut is not expected to require any specialist water management in the long term. However, seepages were identified from around 1.5 metres depth within sandy zones of cohesive till within trial pits TP PTS024 to TP PTS027, which may require short term management during construction. Further investigation of the long term risk is recommended for detailed design.

Groundwater

4.5.29 Groundwater was encountered as water strikes in a number of exploratory holes, particularly boreholes and as seepages within trial pits. The ground water strikes in general, were limited to granular materials and weathered rock/rockhead interfaces. Where encountered, these tended to be at relatively shallow depth and on occasion sub - artesian, informing future design that standard approaches and measures are likely to be suitable. Special relief wells and other measures are not anticipated on the basis of data presented.

4.5.30 Water strikes in cohesive glacial tills were occasionally reported at the boundary with coarse horizons or within particularly sandy zones of the cohesive tills. Occasionally, seepages were encountered. In the cohesive tills, such seepages are expected where water is locally perched, and during the construction period these waters normally drain. Where a “water table” (phreatic surface) is present in the till, this will be slowly drawn down to an equilibrium level over a number of years following completion of earthworks. The position of any phreatic surface will need to be considered in detailed design of cutting slopes in due course, particularly with regard to long term stability. However, particular problems with groundwater are not currently anticipated in the cohesive tills.

Between M6J40 and Kemplay Bank Roundabout, groundwater monitoring standpipes were installed in a number of exploratory hole locations and water levels were monitored both during and after the fieldwork period for 4 months, as reported in the 2021 GI. Table 4-85 lists the exploratory holes with such installations and the minimum and maximum reported groundwater depths, relative to ground level at the location of the installation. Further groundwater monitoring will be undertaken as part of the next phase of ground investigation,

incorporating the borehole installations from the 2021 ground investigation (8). The post fieldwork monitoring period will be extended to 12 months to provide a year round baseline level for groundwater.

Table 4-85 : M6J40 to Kemplay Bank Roundabout - Groundwater Monitoring Summary

Exploratory Hole	Response Zone of Installation (mbegl) Note 1	Maximum Groundwater Level (mbegl)	Minimum Groundwater Level (mbegl)
BH M6J40.001	0.8 – 5	2.76	3.72
SD M6J40.005a	8 - 17	17.21	17.23
BH KBR003	1 – 14.2	11.02	12.57
BH KBR006	1 – 8.2	7.52	7.52
BH KBR011	1 – 6	6.04	6.06
BH KBR012	3 – 15.5	7.31	7.44
SD KBR005	2 – 24.5	18.51	18.73
SD KBR007	4.5 – 15.5	15.27	15.46
Notes: 1. mbegl – metres below existing ground level			

4.5.31 The monitoring results in Table 4-85 indicate that the groundwater levels are generally at depth and present limited impact on the proposed earthworks. Usual considerations with regard to groundwater management during construction, including temporary works for structures, are likely to be suitable without special measures.

4.5.32 Groundwater readings obtained for SD M6J40.005a consistently recorded water at depths expected to be below the toe of the embankment slope leading down to Skirsgill Depot (between chainages Ch.9 800m and Ch.9 900m). During construction, this slope is expected to be built out from the crest and retained at the toe, it is unlikely that groundwater will impact construction at this location.

4.5.33 At Kemplay Bank Roundabout, the proposed east and west bound cuttings, forming partly retained / reinforced underpass slopes, are expected to be the order of 8m to 9m in depth. Groundwater monitoring from exploratory boreholes, SD KBR005 and SD KBR007, show groundwater to be approximately 15m to 19m below current ground levels. It is unlikely that groundwater will significantly impact construction or long term performance of the finished slopes. While not identified, there may be localised areas of perched water in this area which require temporary intervention to manage such during construction. The impact of long term seepage from cut slopes should be risk assessed during PCF stage 5, and appropriate measures such as counterfort drains installed to ensure slope maintenance requirements are robustly managed. It may be feasible to consider in-slope drainage measures should cut slopes require reinforcement intervention.

4.5.34 Groundwater levels beneath sections of the new A66 trunk road, west and east of Kemplay Bank Roundabout, will require further investigation and will be considered as part of the next phase of ground investigation.

4.5.35 Between Penrith and Temple Sowerby, groundwater monitoring standpipes were installed in a number of exploratory hole locations and water levels were monitored both during and after the fieldwork period, as reported in the 2021 GI. The following table lists the exploratory holes with such installations and the minimum and maximum reported groundwater levels, relative to ground level at the location of the installation. Further groundwater monitoring shall be undertaken as part of the next phase on ground investigation, incorporating the borehole installations from the 2021 ground investigation (8). The post fieldwork monitoring period shall be extended to 12 months to provide a year round baseline level for groundwater.

Table 4-86 : Penrith to Temple Sowerby - Groundwater Monitoring Summary

Exploratory Hole	Response Zone of Installation (mbegl) Note 1	Maximum Groundwater Level (mbegl)	Minimum Groundwater Level (mbegl)
BH PTS003	3 – 9	6.89	7.55
BH PTS005	1.5 – 4	0.32	0.44
BH PTS010	3 – 10	9.5	9.53
BH PTS011	1 – 3.5	3.25	3.65
BH PTS012 Note 2	1 – 6	No Readings	No Readings
BH PTS017	5.5 – 15	9.25	9.61
BH PTS018	6.5 – 12.50	7.33	7.59
BH PTS020	1 – 9.7	7.57	7.98

Notes:
1. mbegl – metres below existing ground level.
2. Groundwater depth readings were not obtained from BH PTS012.

4.5.36 The monitoring results in Table 4-86 indicate that the groundwater levels are generally at depth and present limited impact on the proposed earthworks. Usual considerations with regard to groundwater management during construction, including temporary works for structures, are likely to be suitable without special measures. Results in BH PTS005 suggest potentially sub – artesian water pressure, recorded less than 1m below ground level. This may impact widening of the Light Water culvert during construction and longer term settlement and stability of the new A66 embankment.

4.5.37 The new underpass to the A66 at Whinfell Park, chainage Ch. 21 930m may encounter groundwater within the upper 4m of soil, particularly to the south. Groundwater monitoring of BH PTS011 recorded groundwater around 3.50m begl. In addition, a drainage channel is noted to be present at this location, running parallel with the A66 at the underpass locality. The route of this channel will require to be managed throughout construction and in the long term.

SuDS Ponds

4.5.38 Drainage design on the proposed scheme between M6J40 and Temple Sowerby uses sustainable drainage design principles. These require attenuation of flows arising from collection of surface run-off from the new road. In order to protect existing water-courses, the flows will be collected in a number of ponds, sited along the route. At time of writing, locations were chosen, but the nature of the design process means that these can change in future.

Given this, a generic assessment can be made in relation to the ground model applicable to pond sites. This is summarised in Table 4-87.

Table 4-87 : Package B - Sustainable Drainage Ponds summary

Sheet	Chainage And Position Relative to Mainline Note 1	Exploratory Holes	Expected Material	Soakaway Potential
M6J40 to Kemplay Bank Roundabout				
1	Ch. 9 180 South	N/A	Cohesive Glacial Till	Unlikely
2	Ch. 10 300 South	TP KBR003	Granular Glacial Till	Unlikely – Likely Note 2
3	Ch. 11 600 South	TP KBR009	Cohesive Glacial Till	Unlikely Note 2
Penrith to Temple Sowerby				
1	Ch. 20 700 North	TP PTS005	Granular Glacial Till	Unlikely - Likely
2	Ch. 20 930 North	TP PTS007	Granular Glacial Till	Unlikely - Likely
3	Ch. 21 600 North	TP PTS010	Granular Glacial Till	Unlikely - Likely
4	Ch. 22 430 North	TP PTS013	Cohesive Glacial Till	Unlikely Note 3
5	Ch. 23 100 North	TP PTS018	Cohesive Glacial Till	Unlikely
6	Ch. 23 200 North	TP PTS018	Cohesive Glacial Till	Unlikely
7	Ch. 24 300 North	TP PTS023, BH PTS021	SAND	Unlikely Note 3

Notes:
1. Chainage provided is based on scheme chainage located centrally to the individual pond location.
2.Soakaway test not performed but at current pond location as detailed on drawings summarised in Table 4-2. Result of Soakaway did not produce an infiltration rate.
3. Soakaway witnessed limited infiltration but insufficient to yield an infiltration rate. Result indicates poor infiltration characteristics of in situ soil.

4.5.39 Where pond locations are underlain by the granular glacial tills, there is potential for flows from SuDS ponds into the surrounding ground (soakaway), subject to specific location testing in accordance with BRE SD 365 (15).

4.5.40 Similarly, ponds which encounter SAND or intact bedrock may provide suitable drainage properties, subject to clay content and permeability of the parent rock.

4.5.41 Pond locations in the cohesive tills are unlikely to offer the possibility of soakaway, as these tills are effectively impermeable. Design will therefore need to consider capacity in assessment of collection of flows and attenuation times prior to discharge to watercourses.

4.5.42 Material excavated from the ponds will be acceptable for re-use as engineering fill, to differing degrees, again dependent on whether cohesive or granular tills, SAND or intact bedrock. These aspects are considered in the Engineering Assessment.

4.5.43 The foregoing sections provide the geotechnical summary of the ground below the route footprint from M6J40 to Temple Sowerby. This should be read in conjunction with the following geo-environmental models. These provide a review of the geo-chemical testing of the various material deposits to assess the risks of contamination and whether specific mitigation measures or controls are likely to require consideration in detailed design stages in future.

5 M6 Junction 40 Geo – Environmental Assessment

5.1 Introductory Information

5.1.1 Geo-environmental testing of soils and waters samples recovered during the ground investigation was undertaken to enable preliminary human health and controlled waters assessments to quantify the contamination risk potential within the boundary of the scheme and to assess soils re-use potential and suitable waste disposal routes for surplus soils.

5.1.2 This section summarises the geo-environmental testing of made ground and natural strata encountered along the scheme as well as testing of groundwater and surface water samples. The analysis of this data enables a preliminary assessment of the risks posed to human health and controlled waters by comparing the test results against screening values to provide an indication of relative levels of contamination present along the scheme. This approach is consistent with Stage 1 of the Environment Agency's Land Contamination Risk Management (LCRM) (32). This review also includes waste hazard classification of the samples analysed, and a discussion on potential waste disposal routes.

5.1.3 An assessment of the potential contamination sources on site was carried out within National Highways (formerly Highways England) A66 Northern Trans-Pennine Project (NTP) Preliminary Sources Study Report (PSSR) (3). This study was augmented by a review of the site history within the Chapter 9 (Geology and Soils) of the Preliminary Environmental Impact (PEI) Report (33).

5.2 Visual and Olfactory Evidence of Contamination

5.2.1 Visual and olfactory evidence of contamination during the ground investigation predominantly comprised a hydrocarbon odour and gravels of asphalt and bitumen observed in only one exploratory location, SD M6J40.005a at 3.55m bgl. The observations are summarised in Table 5-1, below

Table 5-1: M6J40 – Visual and Olfactory Evidence of Contamination

Exploratory Hole No.	Observation	Depth (m bgl)	Description
SD M6J40.005a	Visual and olfactory	3.55m bgl	Gravel of asphalt and bitumen observed. Strong hydrocarbon odour noted with a slight odour observed in the strata above.

5.3 Chemical Testing Overview

5.3.1 The strategy for chemical testing was developed based upon consideration of the preliminary conceptual site model presented in the PSSR (34) and PEI Report (33) and the materials encountered during the ground investigation. Soil and water samples selected by the A66 NTP Integrated Project Team were sent to Envirolab under a subcontract arrangement with the GI contractor Structural Soils Ltd. (SSL) for selected chemical analysis. The testing carried out on soil and water samples are summarised in Section 5.4 to Section 5.7 below.

5.3.2 A full description of analytical suites and limits of detection are presented in Appendix C2.

5.4 Chemical Testing – Soils

5.4.1 A total of 37 soil samples (comprising 20 Made Ground, six topsoil and 11 superficial samples) from exploratory hole locations relevant to M6 Junction 40 were tested for a range of chemical determinands likely to be encountered on the site as a result of its current and historical land use and geological setting. A summary of soil chemical testing undertaken is presented in Table 5-2.

5.4.2 The samples tested were taken from depths ranging from 0.1 m bgl to 4.0 m bgl and from the range of soil types encountered in the exploratory locations. Soil sampling locations can be found in Drawing HE565627-AMY-HGT-S02-DR-CE-000109.

5.4.3 A catalogue of soil samples subjected to chemical testing is contained in Appendix C2.

5.4.4 Soil chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D),

Table 5-2: M6J40 – Summary of Chemical Testing in Soil Samples

No of Samples	Description	Notes
37	Suite E1a – Primary metals and metalloids	Comprises Arsenic, Boron (Water soluble), Cadmium, Chromium (total), Chromium (trivalent), Chromium (hexavalent), Copper, Lead, Mercury, Nickel, Selenium and Zinc
0	Suite E1b – Secondary metals and metalloids	Comprises Antimony, Barium, Beryllium, Molybdenum and Vanadium
32	Suite E2 – Inorganics	Comprises Ph, Soil Organic Matter, Total Organic Carbon, Sulfate, Sulfide, and loss on ignition
24	Suite E3 – CN/Phenol	Comprises Cyanide (free) and Phenols (total)
28	Suite E4a – Asbestos	Asbestos Presence and ID
37	Suite E6a – TPH CWG	TPH CWG
37	Suite E7a – Speciated PAHs	USEPA 16 PAHS
2	Suite E9 – SVOCs and VOCs	Semi Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs)

5.5 Chemical Testing – Leachate

5.5.1 A total of 14 soil samples from exploratory hole locations were subject to leachate preparation to ascertain the mobility of substances in the soil. Leachate extraction was undertaken as part of the Waste Acceptance Criteria (WAC) preparation method.

5.5.2 The samples tested were taken from depths ranging from 0.15 m bgl to 1.50 m bgl and from the range of soil types encountered in the exploratory locations. Soil sampling locations can be found in Drawing HE565627-AMY-HGT-S02-DR-CE-000105. A catalogue of WAC samples scheduled for analysis is contained in Appendix C2.

5.5.3 Samples selected to undergo Waste Acceptance Criteria (WAC) analysis were subject to leachate preparation using method BS EN 12457-3 which involves a 2 stage leaching process

(a moisture corrected 2:1 liquid to solid ratio leaching step for 6 hours followed by a moisture corrected 8:1 liquid to solid ratio leaching step on the remaining material for 18 hours). The combined results from which are calculated to provide analytical data reported as mg/kg dry weight at 10:1.

5.5.4 The Environment Agency Remedial Targets Methodology report states that pore water concentrations determined for samples with a 2:1 liquid/solid ratio are preferable for risk assessment purposes with the 10:1 liquid/solid ratio leachate is preferred for waste characterisation.

5.5.5 Leachate chemical analysis results (undertaken during WAC extraction) are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D) and summary of the leachate analysis undertaken is presented in Table 5-3 below.

Table 5-3: M6J40 – Summary of Chemical Testing in Leachate Samples

No of Samples	Description	Notes
14	pH	2:1 liquid/solid ratio
14	Electrical Conductivity / Total Dissolved Solids / Chloride / Fluoride / Sulfate / DOC	
14	Metals (Antimony, Arsenic, Barium, Cadmium, Copper, Chromium, lead, Mercury, Molybdenum, Nickel, Selenium, Zinc)	
14	Phenols	

5.6 Chemical Testing – Groundwater

5.6.1 Groundwater sampling was attempted in both monitoring wells installed in boreholes sunk during the M6 Junction 40 ground investigation, however groundwater samples were only able to be recovered at one location. The locations of the monitoring wells are presented within Drawing HE565627-AMY-HGT-S02-DR-CE-000107 and a summary of the groundwater sampling locations are presented in Table 5-4.

5.6.2 Groundwater monitoring wells were developed through purging of three well volumes of groundwater (unless indicated otherwise on the monitoring results) on the first of four groundwater monitoring rounds (the 28th May, 7th, 14th and 22nd June 2021). One low flow groundwater sampling round was carried out on the second of four monitoring rounds. The remaining three rounds comprised groundwater level and gas monitoring only.

Table 5-4: M6J40 – Groundwater Samples

Exploratory Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH M6J40.001	0.80 – 5.00	Glacial Till	Sampled
SD M6J40.005a	8.00 – 17.00	Glacial Till and Glaciofluvial deposits	Insufficient groundwater to sample

5.6.3 All groundwater and surface water samples were subjected to a full suite of chemical analysis as presented in Table 5-5 below.

5.6.4 Groundwater chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D),

Table 5-5: M6J40 – Summary of Chemical Testing in Groundwater Samples

No of Samples	Description	Notes
1	Suite F1a – Metals and metalloids	Comprises pH, Arsenic, Cadmium, Chromium (III and IV), Copper, Iron, Lead, Mercury, Nickel, Selenium, Zinc, Calcium, Hardness, Alkalinity as $CaC0_3$
0	Suite F1b – Secondary metals and metalloids	Comprises Boron, Magnesium, Manganese, Molybdenum and Vanadium
1	Suite F2 – Major ions	Comprises Sulfate, Chloride, Nitrate, Sulfide, Nitrite, Sodium and Potassium
1	Suite F3 – Ammoniacal nitrogen	Ammoniacal Nitrogen
1	Suite F4 – Electrical conductivity	Electrical conductivity
1	Suite F5 – Total suspended solids	Total Suspended Soils
0	Suite F6 – Oxygen demand	Comprises biological oxygen demand and chemical oxygen demand
1	Suite F7a – TPH CWG	TPH CWG
1	Suite F8 – Speciated PAHs	PAHs (USEPA 16)

5.7 Chemical Testing – Surface Water

5.7.1 No surface waters are located in close proximity to the scheme, therefore no surface water samples were taken as part of the M6 Junction 40 Ground Investigation.

5.8 Groundwater and Ground Gas Monitoring

5.8.1 Gas and groundwater levels were recorded at weekly intervals on four occasions, undertaken between the 28th May and 22nd June 2021.

5.8.2 The Monitoring and Post Fieldwork Environmental Sampling Methodology is set out in Section 3.5 of the Ground Investigation Contractor's Factual Report (8) (Appendix D).

5.8.3 The results of the groundwater and ground gas monitoring, together with the temporal (weather) conditions are tabulated in Appendix F (Monitoring) of the Ground Investigation Contractor's Factual Report (8).

5.8.4 The ground gas monitoring results are summarised in Table 5-6 below.

Table 5-6: M6J40 – Groundwater & Ground Gas Monitoring Summary

Exploratory Hole	Methane Conc. % v/v	CO2 Conc. % v/v	O2. Conc. % v/v	Flow (l/h)	Response Zone (m bgl)	Strata	Water Level (m bgl)
BH M6J40.001	0.0	0.1 – 7.8	5.7 – 20.8	0.0	0.80 – 5.00	Glacial Till	2.76 - 3.72
SD M6J40.005a	0.0 – 0.6	0.0 – 1.4	19.1 – 21.3	0.0	8.00 – 17.00	Glacial Till, Glaciofluvial	DRY

5.9 Human Health Assessment – Site End Users

5.9.1 Key potential sources of contamination have been identified and discussed in the PSSR (34) and PEI Report (33). To enable a preliminary human health risk assessment, suitable Generic Assessment Criteria (GAC) have been selected for comparison with the chemical test results obtained from soil samples.

5.9.2 The Human Health Risk Assessment (HHRA) risk assessment methodology is outlined in Appendix C1.

5.9.3 Soil Samples have been screened against Generic Assessment Criteria (GAC) selected from the following strict hierarchy:

- Category 4 Screening Levels (C4SLs) as coordinated by CL: AIRE on behalf of the Department for Environment, Food and Rural Affairs (35) (36);
- LQM/CIEH Suitable 4 Use Levels (S4UL) (37) where published C4SLs are not available; or
- Atkins ATRISKsoil Soil Screening Values (SSVs) (38).

5.9.4 Following a review of default land use scenarios underpinning these models, the "Public Open Space – Park" (POS_{Park}) land use, utilising 1% Soil Organic Matter (SOM) has been selected for use on this project as it is considered to be suitably precautionary for the proposed land use under consideration (i.e. major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SuDs ponds etc) with regards to selection of critical receptor and behavioural exposure parameters.

5.9.5 The full analytical results addressed in this report are presented in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D).

5.9.6 The screening of results is presented in Appendix C3.1, with exceedances of the POS_{Park} GAC summarised in Table 5-7.

Table 5-7: M6J40 – Human Health Exceedances in Soil

Location of Exceedance	Sample depth (m bgl)	Contaminant of Concern	GAC (mg/kg)	Recorded Concentration (mg/kg)	Comment
SD M6J40.005a	3.55	TPH Aromatic C12 - C26	10000	11400	Bitumen and asphalt observed in the strata Strong hydrocarbon odour noted
		TPH Aromatic C16 – C21	7600	15000	
		TPH Aromatic C21 - C35	7800	16300	

5.9.7 The exceedances of the GAC are likely to be associated with the bitumen and asphalt gravels identified as present in the soil.

5.10 Human Health Assessment – Construction and Maintenance Workers

5.10.1 The study area comprises a major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SuDs ponds etc, and it is unlikely the public will access to the land along the scheme on a routine basis post development.

5.10.2 Therefore, the preliminary human health assessment is primarily aimed at identifying significant contamination issues that may impact the scheme design or affect project personnel who will perform the infrastructure upgrade works and subsequent maintenance.

5.10.3 Construction and maintenance workers are more likely to be at risk from acute (short term, high dose) exposure to contaminants within the soils during periods of episodic occupational exposure.

5.10.4 Generic Assessment Criteria (GAC) are for the most part (with the exception of cyanide) protective of chronic (i.e., long term, low dose) exposure rather than the effects of acute exposure. In general, GAC which are protective of chronic exposure are orders of magnitude lower than those which are protective of acute exposure.

5.10.5 The results of the chronic exposure assessment undertaken within Section 5.9 above are considered to be conservative when assessing risks posed to construction and maintenance workers on a site in an occupational exposure setting.

5.10.6 Exceedances of GAC identified within Table 5-7 are considered to be precautionary when assessing the risks posed to construction and maintenance workers in an occupational exposure setting, and any GAC exceedances should be reviewed with a view to putting in place mitigation measures such as the implementation of Safe Systems of Work (SSoW), use of appropriate personal protective equipment (PPE) (e.g. gloves / overalls etc) and / or use of respiratory protective equipment (RPE) as necessary.

5.11 Asbestos Assessment

5.11.1 28 soil samples were screened for asbestos containing materials (presence and identification and quantification) as part of the laboratory assessment. Visual observations on site were also considered.

5.11.2 No asbestos was detected within any samples examined in the laboratory or observed during ground investigation works.

5.12 Controlled Waters Risk Assessment – Tier 1 Assessment

5.12.1 The controlled waters risk assessment (CWRA) should be considered informative, in so much as it presents an evaluation of baseline conditions of the chemistry of leachate, groundwater

and surface water samples encountered at discrete locations along the scheme prior to construction works commencing that may inform future designs.

5.12.2 15 samples (comprising 14 no. leachate, and one groundwater sample) which were recovered and analysed in the course of the Ground Investigation have been assessed to identify potential risks to groundwater resources underlying the study area and to surface waters in the vicinity of the site.

5.12.3 The Controlled Waters Risk Assessment (CWRA) has been undertaken with an initial precautionary Tier 1 assessment. The CWRA Methodology is set out in Appendix C1.

5.12.4 The Tier 1 CWRA has been undertaken comparing the observed concentration against the lowest of available relevant Water Quality Standards (WQS) (i.e., Drinking Water Standards (DWS) or Environmental Quality Standards (EQS).

5.12.5 The results of the Tier 1 (T1) Controlled Waters Risk Assessment screen are presented in Appendix C3.2.

5.12.6 Of the 15 samples (consisting 1 no. groundwater and 14 leachate samples) which underwent the T1 WQS assessment, only the groundwater sample (BH M6J40.001 at 4.80m) passed the conservative T1 WQS assessment.

5.12.7 T1 WQS exceedances were identified for pH, copper, lead, molybdenum and zinc in 14 samples (all leachate samples) and therefore it was necessary to undertake a more detailed Tier 2 assessment of the water results. The groundwater sample contained no WQS exceedances.

5.12.8 In accordance with the Controlled Waters Risk Assessment Methodology" set out in Appendix C1, samples where T1 WQS exceedances have been identified undergo review to determine whether it is possible to exclude the DWS or EQS receptors from the T1 assessment (e.g. due to sample type / proximity to surface water etc). If it is possible to exclude the DWS or EQS receptor, the T1 exceedances can progress to a more relevant T2 (DWS) or T2 (EQS) assessment.

5.12.9 The sample specific Tier 2 Assessment Point WQS evaluation can be found in Appendix C3.3. This identifies locations where Tier 1 WQS exceedances were recorded and whether it is possible to consider further Tier 2 CWRA.

5.12.10 All 14 leachate samples which recorded exceedances of the T1 WQS were able to advance to a T2 DWS assessment. No samples required T2 EQS assessment.

5.13 Controlled Waters Risk Assessment – Tier 2 Groundwater Resource Protection

5.13.1 The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point. (e.g., a groundwater sample, distal to a surface

water receptor would be assessed against Drinking Water Standards (DWS) only to protect groundwater drinking water resources.

5.13.2 The results of the Tier 2 Groundwater Resource Protection (T2 DWS) CWRA are presented in Appendix C3.4. Failures of T2 DWS are summarised in Table 5-8.

Table 5-8: M6J40 – Summary of T2 DWS Exceedances

Contaminant of Concern	Screening Criteria	Result	Exploratory Hole
pH	Between pH 6.5 and pH 9.5	pH 6.35	BH M6J40.002, 0.5m (leachate)
Lead	10µg/l	21 µg/l	BH M6J40.001, 0.5m (leachate)
		23 µg/l	BH M6J40.002, 0.5m (leachate)
		11 µg/l	HTP M6J40.001, 1.0m (leachate)
		39 µg/l	HTP M6J40.002, 0.3m (leachate)
		24 µg/l	TP M6J40.007, 0.15m (leachate)

5.13.3 T2 DWS Exceedances for lead were recorded in five of the 14 leachate samples. No exceedances were recorded in the groundwater sample.

5.13.4 The widespread T2 DWS exceedances of lead within leachate samples has been recorded. The reason for this has not been established, however it has been speculated this may be as a result of naturally elevated background levels resulting from regional bedrock mineralisation.

5.14 Controlled Waters Risk Assessment – Tier 2 Surface Water Assessment

5.14.1 As discussed in Section 5.7 and the WQS Evaluation Table in Appendix C3.3, there are no surface waters in close proximity to the scheme and as a result surface water is not considered to be a potential receptor for the site and no surface water samples were taken. The Tier 2 surface water assessment has not been considered further.

5.15 Re-use of Soils

5.15.1 Introducing a soil material re-use strategy will be consistent with National Highways' commitment to incorporate sustainable methods into the design of projects as outlined in GG103 (Introduction and general requirements for sustainable development and design, 2019). The re-use of soil materials within the scheme will reduce quantities of material destined for landfill, waste generation, unnecessary costs, and unnecessary journeys.

5.15.2 In addition, the requirement to import fill materials (and associated costs) may also be reduced. This will assist with meeting National Highways' environmental sustainability goals, including minimising greenhouse gas emissions, reducing waste generation, using sustainably sourced materials, and being resource efficient and reflecting a circular approach to the use of materials.

5.15.3 Prior to excavations and re-use of the material, an appropriate re-use methodology and Materials Management Plan, and associated Verification Plan document, should be

completed to enable the re-use of the material. The Verification Plan should identify how the placement of materials is to be recorded and the quantity of materials to be used, including a statement on how the use of the materials relates to the highway design. Verification testing results should be compared to re-usability criteria from a corresponding Series 600 Earthworks Specification and Verification Plan.

5.16 Waste Classification

5.16.1 A preliminary waste classification exercise has been undertaken in line with the guidance set out in the Environment Agency: Guidance on the Classification and Assessment of Waste Technical Guidance WM3 document (39) using the results obtained from the ground investigations to determine the likely waste classification of soils within the scheme and provide a likely List of Waste (LoW) code in the event they require to be discarded as a waste.

5.16.2 The Waste Assessment methodology is outlined in Appendix C1. Soil quality data from the ground investigation was entered into the HazWasteOnline™ hazard assessment tool.

5.16.3 A total of 37 soil samples (comprising 6 from Topsoil, 20 from Made Ground, and 11 from natural superficial deposits) have been assessed using the HazWasteOnline™ tool.

5.16.4 Of these, one Made Ground sample was classified “Hazardous”, the remaining 36 were classified “Non-Hazardous”. The Hazardous sample was taken from SD M6J40.005a at 3.55m bgl where exceedances of the human health GAC for organic contaminants were also recorded and bitumen fragments were observed.

The results of the HazWasteOnline™ assessment are contained in the report outputs presented in Appendix C6. Table 5-9 presents a summary of the samples classified as “Hazardous” following the HazWasteOnline™ assessment.

Table 5-9: M6J40 – Soils Classified as Hazardous Waste

Exploratory Hole	Sample Depth (m bgl)	Stratum	Hazard Properties	WAC analysis (Y/N)	Waste Classification
SD M6J40.005a	3.55	Made Ground	**HP 7** – Carcinogenic (TPH) **HP10** – Toxic for reproduction (TPH) **HP11** – Mutagenic (TPH) **HP14** – Ecotoxic (TPH)	N	Hazardous

6 Kemplay Bank Roundabout Geo – Environmental Summary

6.1 Introductory Information

6.1.1 Geo-environmental testing of soils and waters samples recovered during the ground investigation was undertaken to enable preliminary human health and controlled waters assessments to quantify the contamination risk potential within the boundary of the scheme and to assess soils re-use potential and suitable waste disposal routes for surplus soils.

6.1.2 This section summarises the geo-environmental testing of made ground and natural strata encountered along the scheme as well as testing of groundwater and surface water samples. The analysis of this data enables a preliminary assessment of the risks posed to human health and controlled waters by comparing the test results against screening values to provide an indication of relative levels of contamination present along the scheme. This approach is consistent with Stage 1 of the Environment Agency's Land Contamination Risk Management (LCRM). This review also includes waste hazard classification of the samples analysed, and a discussion on potential waste disposal routes.

6.1.3 An assessment of the potential contamination sources on site was carried out within National Highways A66 Northern Trans-Pennine Project (NTP) Preliminary Sources Study Report (PSSR) (34). This study was augmented by a review of the site history within the Chapter 9 (Geology and Soils) of the Preliminary Environmental Impact (PEI) Report (33).

6.2 Visual and Olfactory Evidence of Contamination

6.2.1 Visual and olfactory evidence of contamination during the ground investigation predominantly comprised fragments of asphalt and slag with a hydrocarbon odour observed in four GI locations. The observations are summarised in Table 6-1, below.

Table 6-1: KBR – Visual and Olfactory Evidence of Contamination

Exploratory Hole No	Observation	Depth (m bgl)	Description
BH KBR007	Visual	0.10	Fragments of tarmac observed
BH KBR008	Visual / Olfactory	0.50	Slag fragments observed Faint hydrocarbon odour observed
BH KBR012	Visual / Olfactory	0.50	Asphalt fragments observed Faint hydrocarbon odour observed
SD KBR005	Visual / Olfactory	1.55	Slag and clinker fragments observed Strong hydrocarbon odour observed

6.3 Chemical Testing Overview

6.3.1 The strategy for chemical testing was developed based upon consideration of the preliminary conceptual site model presented in the Technical Appraisal Report (40), PSSR (34) and PEI Report (33) and the materials encountered during the ground investigation. Soil and water

samples selected by the A66 NTP Integrated Project Team were sent to Envirolab under a subcontract arrangement with the GI contractor Structural Soils Ltd. (SSL) for selected chemical analysis. The testing carried out on soil and water samples are summarised in Section 6.4 to Section 6.7 below.

6.3.2 A full description of analytical suites and limits of detection are presented in Appendix C2.

6.4 Chemical Testing – Soils

6.4.1 A total of 45 soil samples (comprising 23 No. Made Ground, 6 No. topsoil and 16 from natural superficial deposits) from exploratory hole locations relevant to Kemplay Bank Roundabout were tested for a range of chemical determinands likely to be encountered on the site as a result of its current and historical land use and geological setting. A summary of soil chemical testing undertaken is presented in Table 6-2.

6.4.2 The samples tested were taken from depths ranging from 0.10 m bgl to 2.90 m bgl and from the range of soil types encountered in the exploratory locations. The location of soil sampling points are shown on Drawing HE565627-AMY-HGT-S02-DR-CE-000110. A catalogue of soil samples subjected to chemical testing is contained in Appendix C2.

6.4.3 Soil chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D),

Table 6-2: KBR – Summary of Chemical Testing in Soil Samples

No of Samples	Description	Notes
45	Suite E1a – Primary metals and metalloids	Comprises Arsenic, Boron (Water soluble), Cadmium, Chromium (total), Chromium (trivalent), Chromium (hexavalent), Copper, Lead, Mercury, Nickel, Selenium and Zinc
0	Suite E1b – Secondary metals and metalloids	Comprises Antimony, Barium, Beryllium, Molybdenum and Vanadium
42	Suite E2 – Inorganics	Comprises pH, Soil Organic Matter, Total Organic Carbon, Sulfate, Sulfide, and loss on ignition
32	Suite E3 – CN/Phenol	Comprises Cyanide (free) and Phenols (total)
32	Suite E4a – Asbestos	Asbestos Presence and ID
45	Suite E6a – TPH CWG	TPH CWG
45	Suite E7a – Speciated PAHs	USEPA 16 PAHS
1	Suite E9 – SVOCs and VOCs	Semi Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs)

6.5 Chemical Testing – Leachate

6.5.1 A total of 18 soil samples from exploratory hole locations were subject to leachate preparation to ascertain the mobility of substances in the soil. Leachate extraction was undertaken as part of the Waste Acceptance Criteria (WAC) preparation method.

6.5.2 The samples tested were taken from depths ranging from 0.20 m bgl to 1.60 m bgl and from the range of soil types encountered in the exploratory locations. The location of WAC sampling

points are shown on Drawing HE565627-AMY-HGT-S02-DR-CE-000106. A catalogue of WAC samples scheduled for analysis is contained in Appendix C2.

6.5.3 Samples selected to undergo Waste Acceptance Criteria (WAC) analysis were subject to leachate preparation using method BS EN 12457-3 which involves a 2 stage leaching process (a moisture corrected 2:1 liquid to solid ratio leaching step for 6 hours followed by a moisture corrected 8:1 liquid to solid ratio leaching step on the remaining material for 18 hours). The combined results from which are calculated to provide analytical data reported as mg/kg dry weight at 10:1.

6.5.4 The Environment Agency Remedial Targets Methodology report states that pore water concentrations determined for samples with a 2:1 liquid/solid ratio are preferable for risk assessment purposes with the 10:1 liquid/solid ratio leachate is preferred for waste characterisation.

6.5.5 Leachate chemical analysis results (undertaken during WAC extraction) are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D) and summary of the leachate analysis undertaken is presented in Table 6-3 below.

Table 6-3: KBR – Summary of Chemical Testing in Leachate Samples

No of Samples	Description	Notes
18	pH	2:1 liquid/solid ratio
18	Electrical Conductivity / Total Dissolved Solids / Chloride / Fluoride / Sulfate / DOC	
18	Metals (Antimony, Arsenic, Barium, Cadmium, Copper, Chromium, lead, Mercury, Molybdenum, Nickel, Selenium, Zinc)	
18	Phenols	

6.6 Chemical Testing – Groundwater

6.6.1 Groundwater sampling was attempted in all six groundwater monitoring wells installed in boreholes sunk during the Kemplay Bank Roundabout ground investigation, however groundwater samples were only able to be recovered from three of the six monitoring as the remaining wells contained insufficient water to sample. The locations of the monitoring wells are presented within Drawing HE565627-AMY-HGT-S02-DR-CE-000108 and a summary of the groundwater sampling locations are presented in Table 6-4 and Table 6-5.

6.6.2 Groundwater monitoring wells developed by purging of three well volumes of groundwater (unless indicated otherwise on the monitoring results) on the first of four groundwater monitoring rounds (the 27th May to 3rd June, 7th June, 14th June and 22nd June 2021). One low flow groundwater sampling round was carried out on the second of four monitoring rounds.

Table 6-4: KBR – Groundwater Installation, Sampled

Exploratory Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH KBR003	1.00 – 14.20	Granular Glacial Till, Fluvioglacial deposits	Sampled
BH KBR012	3.00 – 15.50	Fluvioglacial deposits	Sampled
SD KBR005	2.00 – 24.50	Granular and cohesive Glacial Till, Fluvioglacial deposits	Sampled

Table 6-5: KBR – Groundwater Installation, Not Sampled

Exploratory Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH KBR006	1.00 – 8.20	Granular Glacial Till, Fluvioglacial deposits	Insufficient groundwater to sample
BH KBR011	1.00 – 6.00	Granular and cohesive Glacial Till, Fluvioglacial deposits	Insufficient groundwater to sample
SD KBR007	4.50 – 15.50	Granular and cohesive Glacial Till, Fluvioglacial deposits	Insufficient groundwater to sample

6.6.3 All groundwater and surface water samples were subjected to a full suite of chemical analysis as presented in Table 6-6 below.

6.6.4 Groundwater chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D),

Table 6-6: KBR – Summary of Chemical Testing in Groundwater Samples

No of Samples	Description	Notes
3	Suite F1a – Metals and metalloids	Comprises pH, Arsenic, Cadmium, Chromium (III and IV), Copper, Iron, Lead, Mercury, Nickel, Selenium, Zinc, Calcium, Hardness, Alkalinity as $CaC0_3$
0	Suite F1b – Secondary metals and metalloids	Comprises Boron, Magnesium, Manganese, Molybdenum and Vanadium
3	Suite F2 – Major ions	Comprises Sulfate, Chloride, Nitrate, Sulfide, Nitrite, Sodium and Potassium
3	Suite F3 – Ammoniacal nitrogen	Ammoniacal Nitrogen
3	Suite F4 – Electrical conductivity	Electrical conductivity
3	Suite F5 – Total suspended solids	Total Suspended Soils
0	Suite F6 – Oxygen demand	Comprises biological oxygen demand and chemical oxygen demand
3	Suite F7a – TPH CWG	TPH CWG
3	Suite F8 – Speciated PAHs	PAHs (USEPA 16)

6.7 Chemical Testing – Surface Water

6.7.1 No surface waters are located in close proximity to the scheme, therefore no surface water samples were taken as part of the Kemplay Bank Roundabout Ground Investigation.

6.8 Groundwater and Ground Gas Monitoring

6.8.1 Gas and groundwater levels were recorded at weekly intervals on four occasions, undertaken between the 27th May and 22nd June 2021.

6.8.2 The Monitoring and Post Fieldwork Environmental Sampling Methodology is set out in Section 3.5 of the Ground Investigation Contractor's Factual Report (8) (Appendix D).

6.8.3 The results of the groundwater and ground gas monitoring, together with the temporal (weather) conditions are tabulated in Appendix F (Monitoring) of the Ground Investigation Contractor's Factual Report (8).

6.8.4 The ground gas monitoring results are summarised in Table 6-7 below.

Table 6-7: KBR - Groundwater & Ground Gas Monitoring Summary

Exploratory Hole	Methane Conc. % v/v	CO2 Conc. % v/v	O2. Conc. % v/v	Flow (l/h)	Response Zone (m bgl)	Strata	Water Level (m bgl)
BH KBR003	0.0	0.1 – 1.4	18.2 – 20.9	0.0	1.00 – 14.20	Glacial Till, Fluvioglacial deposits	11.2 – 12.4
BH KBR006	0.0	0.1 – 4.0	12.9 – 21.1	0.0	1.00 – 8.20	Glacial Till, Fluvioglacial deposits	DRY
BH KBR011	0.0	0.1 – 1.9	18.1 – 20.1	0.1 – 1.0	1.00 – 6.00	Glacial Till, Fluvioglacial deposits	DRY
BH KBR012	0.0	0.1 – 4.9	9.4 – 20.9	0.0	3.00 – 15.50	Fluvioglacial deposits	7.31 – 7.44
SD KBR005	0.0	0.1 – 1.6	14.0 – 20.8	0.0	2.00 – 24.50	Glacial Till, Fluvioglacial deposits	18.6 – 18.73
SD KBR007	0.0	0.1 – 5.7	16.5 – 20.9	0.0	4.50 – 15.50	Glacial Till, Fluvioglacial deposits	DRY

6.9 Human Health Assessment – Site End Users

6.9.1 Key potential sources of contamination have been identified and discussed in the PSSR (34) and PEI Report (33). To enable a preliminary human health risk assessment, suitable Generic Assessment Criteria (GAC) have been selected for comparison with the chemical test results obtained from soil samples.

6.9.2 The Human Health Risk Assessment (HHRA) risk assessment methodology is outlined in Appendix C1.

6.9.3 Soil Samples have been screened against Generic Assessment Criteria (GAC) selected from the following strict hierarchy:

- Category 4 Screening Levels (C4SLs) as coordinated by CL: AIRE on behalf of the Department for Environment, Food and Rural Affairs (35) (36);
- LQM/CIEH Suitable 4 Use Levels (S4UL) (37) where published C4SLs are not available; or
- Atkins ATRISKsoil Soil Screening Values (SSVs) (38).

6.9.4 Following a review of default land use scenarios underpinning these models, the "Public Open Space – Park" (POS_{Park}) land use, utilising 1% Soil Organic Matter (SOM) has been selected for use on this project as it is considered to be suitably precautionary for the proposed land use under consideration (i.e. major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SuDs ponds etc) with regards to selection of critical receptor and behavioural exposure parameters.

6.9.5 The full analytical results addressed in this report are presented in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D).

6.9.6 The screening of results is presented in Appendix C4.1, none of the test results exceeded the GAC.

6.10 Human Health Assessment – Construction and Maintenance Workers

6.10.1 The study area comprises a major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SuDs ponds etc, and it is unlikely the public will access to the land along the scheme on a routine basis post development.

6.10.2 Therefore, the preliminary human health assessment is primarily aimed at identifying significant contamination issues that may impact the scheme design or affect project personnel who will perform the infrastructure upgrade works and subsequent maintenance.

6.10.3 Construction and maintenance workers are more likely to be at risk from acute (short term, high dose) exposure to contaminants within the soils during periods of episodic occupational exposure.

6.10.4 Generic Assessment Criteria (GAC) are for the most part (with the exception of cyanide) protective of chronic (i.e., long term, low dose) exposure rather than the effects of acute exposure. In general, GAC which are protective of chronic exposure are orders of magnitude lower than those which are protective of acute exposure.

6.10.5 The results of the chronic exposure assessment undertaken within Section 6.9 are considered to be conservative when assessing risks posed to construction and maintenance workers on a site in an occupational exposure setting.

6.10.6 There were no exceedances of the GAC recorded in Section 6.9; however, consideration should be given to managing unexpected contamination in further ground investigation or construction works.

6.11 Asbestos Assessment

6.11.1 32 soil samples were screened for asbestos containing materials (presence and identification and quantification) as part of the laboratory assessment. Visual observations on site were also considered.

6.11.2 No asbestos was detected within any samples examined in the laboratory or observed during ground investigation works.

6.12 Controlled Waters Risk Assessment – Tier 1 Assessment

6.12.1 The controlled waters risk assessment (CWRA) should be considered informative, in so much as it presents an evaluation of baseline conditions of the chemistry of leachate, groundwater and surface water samples encountered at discrete locations along the scheme prior to construction works commencing that may inform future designs.

6.12.2 21 samples (comprising 18 no. leachate, and 3 no. groundwater samples) which were recovered and analysed in the course of the Ground Investigation have been assessed to identify potential risks to groundwater resources underlying the study area and to surface waters in the vicinity of the site

6.12.3 The Controlled Waters Risk Assessment (CWRA) has been undertaken with an initial precautionary Tier 1 assessment. The CWRA Methodology is set out in Appendix C1.

6.12.4 The Tier 1 CWRA has been undertaken comparing the observed concentration against the lowest of available relevant Water Quality Standards (WQS) (i.e., Drinking Water Standards (DWS) or Environmental Quality Standards (EQS).

6.12.5 The results of the Tier 1 (T1) Controlled Waters Risk Assessment screen are presented in Appendix C4.2.

6.12.6 Of the 21 leachate and groundwater samples which underwent the T1 WQS assessment, two groundwater samples (BH KBR003 from 13.0m and SD KBR005 from 20.0m passed the conservative T1 WQS assessment.

6.12.7 T1 WQS exceedances were identified for various determinands including pH, arsenic, cadmium, copper, lead, manganese, molybdenum, nickel and zinc in the remaining 19 samples (comprising 18 leachate and 1 groundwater samples) and therefore it was necessary to undertake a more detailed Tier 2 assessment of the water results. T1 exceedances for acenapthene, flourene and phenanthrene were recorded in BH KBR012.

6.12.8 In accordance with the Controlled Waters Risk Assessment Methodology" set out in Appendix C1, samples where T1 WQS exceedances have been identified undergo review to determine whether it is possible to exclude the DWS or EQS receptors from the T1 assessment (e.g. due to sample type / proximity to surface water etc). If it is possible to exclude the DWS or

EQS receptor, the T1 exceedances can progress to a more relevant T2 (DWS) or T2 (EQS) assessment.

6.12.9 The sample specific Tier 2 Assessment Point WQS evaluation can be found in Appendix C4.3. This identifies locations where Tier 1 WQS exceedances were recorded and whether it is possible to consider further Tier 2 CWRA.

6.12.10 19 samples (comprising 18 no. leachate, and 1 no. groundwater sample) which recorded exceedances of the T1 WQS were able to advance to a T2 DWS assessment. No samples required T2 EQS assessment.

6.13 Controlled Waters Risk Assessment – Tier 2 Groundwater Resource Protection

6.13.1 The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point (e.g., a groundwater sample, distal to a surface water receptor would be assessed against Drinking Water Standards (DWS) only to protect groundwater drinking water resources.

6.13.2 The results of the Tier 2 Groundwater Resource Protection (T2 DWS) CWRA are presented in Appendix C4.4. Failures of T2 DWS are summarised in Table 6-8.

Table 6-8: KBR – Summary of T2 DWS Exceedances

Contaminant of Concern	T2 DWS WQS	Result	Exploratory Hole
pH	pH6.5 – pH9.5	pH 6.23	TP KBR003, 0.3m (leachate)
		pH 6.16	BH KBR003, 0.3m (leachate)
		pH 5.74	BH KBR011, 0.2m (leachate)
Arsenic	10 µg/l	15 µg/l	TP KBR009, 1.2m (leachate)
Lead	10 µg/l	46 µg/l	TP KBR003, 0.3m (leachate)
		19 µg/l	TP KBR006, 1.2m (leachate)
		11 µg/l	TP KBR009, 1.2m (leachate)
		20 µg/l	BH KBR002, 0.5m (leachate)
		39 µg/l	BH KBR003, 0.3m (leachate)
		61 µg/l	BH KBR011, 0.2m (leachate)
		14 µg/l	SD KBR007, 0.5m (leachate)
Nickel	20 µg/l	23 µg/l	BH KBR005, 0.6m (leachate)
PAH (Acenaphthene)	0.01 ug/l (LoD)	0.3 µg/l	BH KBR012, 12.5m (Groundwater)
TPH-CWG - Aromatic >C12 - C16	90 ug/l	103 ug/l	BH KBR012, 12.5m (Groundwater)

6.13.3 The widespread T2 DWS exceedances of lead within leachate samples has been recorded. The reason for this has not been established, however it has been speculated this may be as a result of naturally elevated background levels resulting from regional bedrock mineralisation.

6.14 Controlled Waters Risk Assessment – Tier 2 Surface Water Assessment

6.14.1 As discussed in Section 6.7 and the WQS Evaluation Table in Appendix C4.3, there are no surface waters in close proximity to the scheme and as a result surface waters are not considered to be a potential receptor for the site and no surface water samples were taken. The Tier 2 surface water assessment has not been considered further.

6.15 Re-use of Soils

6.15.1 Introducing a soil material re-use strategy will be consistent with National Highways' commitment to incorporate sustainable methods into the design of projects as outlined in GG103 (Introduction and general requirements for sustainable development and design, 2019). The re-use of soil materials within the scheme will reduce quantities of material destined for landfill, waste generation, unnecessary costs, and unnecessary journeys.

6.15.2 In addition, the requirement to import fill materials (and associated costs) may also be reduced. This will assist with meeting National Highways' environmental sustainability goals, including minimising greenhouse gas emissions, reducing waste generation, using sustainably sourced materials, and being resource efficient and reflecting a circular approach to the use of materials.

6.15.3 Prior to excavations and re-use of the material, an appropriate re-use methodology and Materials Management Plan, and associated Verification Plan document, should be completed to enable the re-use of the material. The Verification Plan should identify how the placement of materials is to be recorded and the quantity of materials to be used, including a statement on how the use of the materials relates to the highway design. Verification testing results should be compared to re-usability criteria from a corresponding Series 600 Earthworks Specification and Verification Plan.

6.16 Waste Classification

6.16.1 A preliminary waste classification exercise has been undertaken in line with the guidance set out in the Environment Agency: Guidance on the Classification and Assessment of Waste Technical Guidance WM3 document (39) using the results obtained from the ground investigations to determine the likely waste classification of soils within the scheme and provide a likely List of Waste (LoW) code in the event they require to be discarded as a waste.

6.16.2 The Waste Assessment methodology is outlined in Appendix C1. Soil quality data from the ground investigation was entered into the HazWasteOnline™ hazard assessment tool.

6.16.3 A total of 45 soil samples (comprising 6 from Topsoil, 23 from Made Ground, and 16 from natural superficial deposits) have been assessed using the HazWasteOnline™ tool. All soil samples were classified as "Non-Hazardous" waste.

6.16.4 The results of the HazWasteOnline™ assessment are contained in the report outputs presented in Appendix C7.

7 Penrith To Temple Sowerby Geo – Environmental Summary

7.1 Introductory Information

7.1.1 Geo-environmental testing of soils and waters samples recovered during the ground investigation was undertaken to enable preliminary human health and controlled waters assessments to quantify the contamination risk potential within the boundary of the scheme and to assess soils re-use potential and suitable waste disposal routes for surplus soils.

7.1.2 This section summarises the geo-environmental testing of made ground and natural strata encountered along the scheme as well as testing of groundwater and surface water samples. The analysis of this data enables a preliminary assessment of the risks posed to human health and controlled waters by comparing the test results against screening values to provide an indication of relative levels of contamination present along the scheme. This approach is consistent with Stage 1 of the Environment Agency's Land Contamination Risk Management (LCRM). This review also includes waste hazard classification of the samples analysed, and a discussion on potential waste disposal routes.

7.1.3 An assessment of the potential contamination sources on site was carried out within National Highways A66 Northern Trans-Pennine Project (NTP) Preliminary Sources Study Report (PSSR) (34). This study was augmented by a review of the site history within the Chapter 9 (Geology and Soils) of the Preliminary Environmental Impact (PEI) Report (33).

7.2 Visual and Olfactory Evidence of Contamination

7.2.1 Visual and olfactory evidence of contamination during the ground investigation predominantly comprised ballast gravels observed in two locations and black asphalt gravel with a strong tar odour between 0.5m bgl and 0.6m bgl in BH PTS001A. The observations are summarised in Table 7-1, below.

Table 7-1: PTS – Visual and Olfactory Evidence of Contamination

Exploratory Hole No	Observation	Depth (m bgl)	Description
BH PTS001A	Visual	0.4	Ballast observed
		0.7	Ashy gravel underlying asphalt gravel
BH PTS023	Visual	0.5	Ballast observed

7.3 Chemical Testing Overview

7.3.1 The strategy for chemical testing was developed based upon consideration of the preliminary conceptual site model presented in the Technical Appraisal Report (40), PSSR (34) and PEI Report (33) and the materials encountered during the ground investigation. Soil and water samples selected by the A66 NTP Integrated Project Team were sent to Envirolab under a subcontract arrangement with the GI contractor Structural Soils Ltd. (SSL) for selected

chemical analysis. The testing carried out on soil and water samples are summarised in Section 7.4 to Section 7.7 below.

7.3.2 A full description of analytical suites and limits of detection are presented in Appendix C2.

7.4 Chemical Testing – Soils

7.4.1 A total of 93 soil samples (comprising 21 from Topsoil, 18 from Made Ground, and 53 from natural superficial deposits and one peat deposit) from exploratory hole locations relevant to Penrith to Temple Sowerby ground investigation were tested for a range of chemical determinands likely to be encountered on the site as a result of its current and historical land use and geological setting. A summary of soil chemical testing undertaken is presented in Table 7-2.

7.4.2 The samples tested were taken from depths ranging from 0.1 m bgl to 2.5 m bgl and from the range of soil types encountered in the exploratory locations. The location of soil sampling points are shown on Drawings HE565627-AMY-HGT-S03-DR-CE-000117 to HE565627-AMY-HGT-S03-DR-CE-000121. A catalogue of soil samples subjected to chemical testing is contained in Appendix C2.

7.4.3 Soil chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D),

Table 7-2: PTS – Summary of Chemical Testing in Soil Samples

No of Samples	Description	Notes
93	Suite E1a – Primary metals and metalloids	Comprises Arsenic, Boron (Water soluble), Cadmium, Chromium (total), Chromium (trivalent), Chromium (hexavalent), Copper, Lead, Mercury, Nickel, Selenium and Zinc.
0	Suite E1b – Secondary metals and metalloids	Comprises Antimony, Barium, Beryllium, Molybdenum and Vanadium.
90	Suite E2 – Inorganics	Comprises pH, Soil Organic Matter, Total Organic Carbon, Sulfate, Sulfide, and loss on ignition.
38	Suite E3 – CN/Phenol	Comprises Cyanide (free) and Phenols (total).
40	Suite E4a – Asbestos	Asbestos Presence and ID.
93	Suite E6a – TPH CWG	TPH CWG.
93	Suite E7a – Speciated PAHs	USEPA 16 PAHS.
1	Suite E9 – SVOCs and VOCs	Semi Volatile Organic Compounds (SVOCs) and Volatile Organic Compounds (VOCs).

7.5 Chemical Testing – Leachate

7.5.1 A total of 39 soil samples from exploratory hole locations were subject to leachate preparation to ascertain the mobility of substances in the soil. Leachate extraction was undertaken as part of the Waste Acceptance Criteria (WAC) preparation method.

7.5.2 The samples tested were taken from depths ranging from 0.1 m bgl to 2.5 m bgl and from the range of soil types encountered in the exploratory locations. The location of WAC sampling

points are shown on Drawings HE565627-AMY-HGT-S03-DR-CE-000108 to HE565627-AMY-HGT-S03-DR-CE-000112. A catalogue of WAC samples scheduled for analysis is contained in Appendix C2.

7.5.3 Samples selected to undergo Waste Acceptance Criteria (WAC) analysis were subject to leachate preparation using method BS EN 12457-3 which involves a 2 stage leaching process (a moisture corrected 2:1 liquid to solid ratio leaching step for 6 hours followed by a moisture corrected 8:1 liquid to solid ratio leaching step on the remaining material for 18 hours). The combined results from which are calculated to provide analytical data reported as mg/kg dry weight at 10:1.

7.5.4 The Environment Agency Remedial Targets Methodology report states that pore water concentrations determined for samples with a 2:1 liquid/solid ratio are preferable for risk assessment purposes with the 10:1 liquid/solid ratio leachate is preferred for waste characterisation.

7.5.5 Leachate chemical analysis results (undertaken during WAC extraction) are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D) and summary of the leachate analysis undertaken is presented in Table 7-3 below.

Table 7-3: PTS – Summary of Chemical Testing in Leachate Samples

No of Samples	Description	Notes
41	pH	2:1 liquid/solid ratio
41	Electrical Conductivity / Total Dissolved Solids / Chloride / Fluoride / Sulfate / DOC	
41	Metals (Antimony, Arsenic, Barium, Cadmium, Copper, Chromium, lead, Mercury, Molybdenum, Nickel, Selenium, Zinc)	
41	Phenols	

7.6 Chemical Testing – Groundwater

7.6.1 Groundwater sampling was attempted in all eight groundwater monitoring wells installed in boreholes sunk during the Penrith to Temple Sowerby ground investigation, however groundwater samples were only able to be recovered from six of the monitoring wells as two contained insufficient water to sample. The locations of the monitoring wells are presented within Drawings No. HE565627-AMY-HGT-S03-DR-CE-000113 to HE565627-AMY-HGT-S03-DR-CE-000116, and a summary of the groundwater sampling locations are presented in Table 7-4 and Table 7-5.

Groundwater monitoring wells were developed by purging three well volumes of groundwater (unless indicated otherwise on the monitoring results) on the first of four groundwater monitoring rounds (1st, 7th, 14th and 22nd June 2021). One low flow groundwater sampling round was carried out on the second of four monitoring rounds The 7th June 2021.

Table 7-4: PTS – Borehole Installations, Sampled

Exploratory Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH PTS003	3.00 – 9.00	Granular and cohesive Glacial Till	Sampled
BH PTS005	1.50 – 4.00	Granular Glacial Till	
BH PTS011	1.00 – 3.50	Granular and cohesive Glacial Till	
BH PTS017	5.50 – 15.00	Granular Glacial Till and Penrith Sandstone Formation (bedrock)	
BH PTS018	6.50 – 12.50	Granular Glacial Till and Penrith Sandstone Formation (bedrock)	
BH PTS020	1.00 – 9.70	Cohesive Glacial Till	

Table 7-5 PTS – Borehole Installations, Not Sampled

Exploratory Hole	Response Zone Depth (m bgl)	Screened Horizon	Notes
BH PTS010	3.00 – 10.00	Granular Glacial Till and Penrith Sandstone Formation (bedrock)	Insufficient groundwater for sampling
BH PTS012	1.00 – 6.00	Granular and cohesive Glacial Till	

7.6.2 All groundwater and surface water samples were subjected to a full suite of chemical analysis as presented in Table 7-6 below.

7.6.3 Groundwater chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D),

Table 7-6: PTS – Summary of Chemical Testing in Groundwater Samples

No of Samples	Description	Notes
6	Suite F1a – Metals and metalloids	Comprises pH, Arsenic, Cadmium, Chromium (III and IV), Copper, Iron, Lead, Mercury, Nickel, Selenium, Zinc, Calcium, Hardness, Alkalinity as $CaC0_3$.
6	Suite F1b – Secondary metals and metalloids	Comprises Boron, Magnesium, Manganese, Molybdenum and Vanadium.
6	Suite F2 – Major ions	Comprises Sulfate, Chloride, Nitrate, Sulfide, Nitrite, Sodium and Potassium.
6	Suite F3 – Ammoniacal nitrogen	Ammoniacal Nitrogen.
6	Suite F4 – Electrical conductivity	Electrical conductivity.
5 *	Suite F5– Total suspended solids	Total Suspended Soils.
0	Suite F6 – Oxygen demand	Comprises biological oxygen demand and chemical oxygen demand.
5 *	Suite F7a – TPH CWG	TPH CWG.
5 *	Suite F8 – Speciated PAHs	PAHs (USEPA 16).
· testing was unable to be carried out on one sample		

7.7 Chemical Testing – Surface Water

7.7.1 A total of two surface water samples were recovered from key sampling points on surface waters located within Penrith to Temple Sowerby on the second of four monitoring rounds on 6th June 2021. A summary of the surface water sampling locations are presented in Table 7-7 below.

Table 7-7: PTS – Surface Water Sampling Locations

Surface Water Sampling point	Sample point Co-ordinates (NGR)	Watercourse	Notes
SW BH PTS005	354927, 528932	Light Water	-
SW BH PTS011	355991, 528888	Field drain	-

7.7.2 All surface water samples were subjected to a full suite of chemical analysis as presented in Table 7-8 below.

7.7.3 Surface water chemical analysis results are found in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D).

Table 7-8: PTS – Summary of Chemical Testing in Surface Water Samples

No of Samples	Description	Notes
2	Suite F1a – Metals and metalloids	Comprises pH, Arsenic, Cadmium, Chromium (III and IV), Copper, Iron, Lead, Mercury, Nickel, Selenium, Zinc, Calcium, Hardness, Alkalinity as $CaC0_3$.
2	Suite F1b – secondary metals and metalloids	Comprises Boron, Magnesium, Manganese, Molybdenum and Vanadium.
2	Suite F2 – Major ions	Comprises Sulfate, Chloride, Nitrate, Sulfide, Nitrite, Sodium and Potassium.
2	Suite F3 – Ammoniacal nitrogen	Ammoniacal Nitrogen.
2	Suite F4 – Electrical conductivity	Electrical conductivity.
0	Suite F5 – Total suspended solids	Total Suspended Soils.
2	Suite F6 – Oxygen demand	Comprises biological oxygen demand and chemical oxygen demand.
2	Suite F7a – TPH CWG	TPH CWG.
2	Suite F8 – Speciated PAHs	PAHs (USEPA 16).

7.8 Groundwater and Ground Gas Monitoring

7.8.1 Gas and groundwater levels were recorded at weekly intervals on four occasions, undertaken between 26th May 2021 and 23rd June 2021.

7.8.2 The Monitoring and Post Fieldwork Environmental Sampling Methodology is set out in Section 3.5 of the Ground Investigation Contractor's Factual Report (8) (Appendix D).

7.8.3 The results of the groundwater and ground gas monitoring, together with the temporal (weather) conditions are tabulated in Appendix F (Monitoring) of the Ground Investigation Contractor's Factual Report (8).

7.8.4 The ground gas monitoring results are summarised in Table 7-9 below.

Table 7-9: PTS – Groundwater and Ground Gas Monitoring Summary

Exploratory Hole	Methane Conc. % v/v	CO_2 Conc. % v/v	O_2. Conc. % v/v	Flow (l/h)	Response Zone (m bgl)	Strata	Water Level (m bgl)
BH PTS003	0.0	0.1 – 0.3	19.5 – 21.0	0.0	3.00 – 9.00	Glacial Till	7.39 - 7.49
BH PTS005	0.0	0.0 – 0.2	20.1 – 20.8	0.3	1.50 – 4.00	Glacial Till	0.32 – 0.41

Exploratory Hole	Methane Conc. % v/v	CO_2 Conc. % v/v	O_2. Conc. % v/v	Flow (l/h)	Response Zone (m bgl)	Strata	Water Level (m bgl)
BH PTS010	0.0	0.1 – 0.7	19.7 – 20.1	0.0	3.00 – 10.00	Glacial Till and bedrock	DRY
BH PTS011	0.0	0.1 – 2.2	4.6 – 20.8	0.0	1.00 – 3.50	Glacial Till	3.31 – 3.65
BH PTS012	0.0	0.1 – 3.3	16.5 – 20.9	0.2	1.00 – 6.00	Glacial Till	DRY
BH PTS017	0.0	0.1 – 1.1	18.9 – 20.1	0.1	5.50 – 15.00	Glacial Till and bedrock	9.25 – 9.61
BH PTS018	0.0	0.1 – 3.6	14.3 – 20.8	0.0	6.50 – 12.50	Glacial Till and bedrock	7.33 – 7.59
BH PTS020	0.0	0.1 – 4.1	5.2 – 20.8	0.0	1.00 – 9.70	Glacial Till	7.64 – 7.98

7.8.5 The response zone was flooded in BH PTS005, The gas monitoring results within this well is considered to be unreliable due to this and results should be treated with caution. The base of BH PTS011 has likely sunk following completion of the borehole installation and settlement of the borehole.

7.9 Human Health Assessment – Site End Users

7.9.1 Key potential sources of contamination have been identified and discussed in the PSSR (34) and PEI Report (33). To enable a preliminary human health risk assessment, suitable Generic Assessment Criteria (GAC) have been selected for comparison with the chemical test results obtained from soil samples.

7.9.2 The Human Health Risk Assessment (HHRA) risk assessment methodology is outlined in Appendix C1.

7.9.3 Soil Samples have been screened against Generic Assessment Criteria (GAC) selected from the following strict hierarchy:

- Category 4 Screening Levels (C4SLs) as coordinated by CL: AIRE on behalf of the Department for Environment, Food and Rural Affairs (35) (36);
- LQM/CIEH Suitable 4 Use Levels (S4UL) (37) where published C4SLs are not available; or
- Atkins ATRISKsoil Soil Screening Values (SSVs) (38).

7.9.4 Following a review of default land use scenarios underpinning these models, the “Public Open Space – Park” (POS_{Park}) land use, utilising 1% Soil Organic Matter (SOM) has been selected for use on this project as it is considered to be suitably precautionary for the proposed land use under consideration (i.e. major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SuDs ponds etc) with regards to selection of critical receptor and behavioural exposure parameters.

7.9.5 The full analytical results addressed in this report are presented in Appendix E (Geo-environmental Testing) of the Ground Investigation Contractor's Factual Report (8) (Appendix D).

7.9.6 The screening of results is presented in Appendix C5.1, with exceedances of the POS_{Park} GAC summarised in Table 7-10.

Table 7-10: PTS – Human Health Exceedances in Soil

Contaminant of Concern	GAC (mg/kg)	Location of Exceedance	Sample depth (m bgl)	Recorded Concentration (mg/kg)	Comment
Benzo(a)anthracene	49	BH PTS001A	0.4	339	Ballast gravels noted in both locations BH PTS001A recorded asphalt gravels in the strata above
			0.7	321	
Chrysene	93	BH PTS001A	0.4	287	
			0.7	256	
Benzo(b)fluoranthene	13	BH PTS001A	0.4	278	
			0.7	247	
		BH PTS023	1.2	20.5	
Benzo(a)pyrene	21	BH PTS001A	0.4	262	
			0.7	255	
Indeno(1,2,3-cd) pyrene	150	BH PTS001A	0.4	179	
			0.7	154	
Dibenzo (a, h) anthracene	1.1	BH PTS001A	0.4	34.7	
			0.7	30.8	
		BH PTS023	1.2	2.53	

7.10 Human Health Assessment – Construction and Maintenance Workers

7.10.1 The study area comprises a major highway scheme with associated earthworks, structures road verge landscaping and ancillary features such as SuDs ponds etc, and it is unlikely the public will access to the land along the scheme on a routine basis post development.

7.10.2 Therefore, the preliminary human health assessment is primarily aimed at identifying significant contamination issues that may impact the scheme design or affect project personnel who will perform the infrastructure upgrade works and subsequent maintenance.

7.10.3 Construction and maintenance workers are more likely to be at risk from acute (short term, high dose) exposure to contaminants within the soils during periods of episodic occupational exposure.

7.10.4 Generic Assessment Criteria (GAC) are for the most part (with the exception of cyanide) protective of chronic (i.e., long term, low dose) exposure rather than the effects of acute

exposure. In general, GAC which are protective of chronic exposure are orders of magnitude lower than those which are protective of acute exposure.

7.10.5 The results of the chronic exposure assessment undertaken within Section 7.9 are considered to be conservative when assessing risks posed to construction and maintenance workers on a site in an occupational exposure setting.

7.10.6 Exceedances of GAC identified within Table 7-10 are considered to be precautionary when assessing the risks posed to construction and maintenance workers in an occupational exposure setting, and any GAC exceedances should be reviewed with a view to putting in place mitigation measures such as the implementation of Safe Systems of Work (SSoW), use of appropriate personal protective equipment (PPE) (e.g. gloves / overalls etc) and / or use of respiratory protective equipment (RPE) as necessary.

7.11 Asbestos Assessment

7.11.1 40 soil samples were screened for asbestos containing materials (presence and identification and quantification) as part of the laboratory assessment. Visual observations on site were also considered.

7.11.2 Asbestos was not observed during the ground investigation works however one sample examined in the laboratory samples contained chrysotile asbestos cement. The result is summarised in Table 7-11.

Table 7-11: PTS – Summary of Asbestos Exceedances

Sample Location	Depth (m bgl)	Asbestos Type	Present as	Quantification (%)	Comment
BH PTS001A	0.4m	Chrysotile	Cement	<0.001%	-

7.12 Controlled Waters Risk Assessment – Tier 1 Assessment

7.12.1 The controlled waters risk assessment (CWRA) should be considered informative, in so much as it presents an evaluation of baseline conditions of the chemistry of leachate, groundwater and surface water samples encountered at discrete locations along the scheme prior to construction works commencing that may inform future designs.

7.12.2 49 samples (comprising 41 no. leachate, 6 no. groundwater and 2 no. surface water samples) were recovered and analysed in the course of the Ground Investigation have been assessed to identify potential risks to groundwater resources underlying the study area and to surface waters in the vicinity of the site.

7.12.3 The Controlled Waters Risk Assessment (CWRA) has been undertaken with an initial precautionary Tier 1 assessment. The CWRA Methodology is set out in Appendix C1.

7.12.4 The Tier 1 CWRA has been undertaken comparing the observed concentration against the lowest of available relevant Water Quality Standards (WQS) (i.e., Drinking Water Standards (DWS) or Environmental Quality Standards (EQS).

7.12.5 The results of the Tier 1 (T1) Controlled Waters Risk Assessment screen are presented in Appendix C5.2.

7.12.6 Of the 49 samples which underwent the T1 WQS assessment, three groundwater samples (BH PTS005, BH PTS018 and BH PTS020) and one leachate sample (TP PTS019 0.6m bgl) passed the conservative T1 WQS assessment.

7.12.7 T1 WQS failures were identified for pH, ammoniacal nitrogen, arsenic, copper, lead, molybdenum, zinc and TPH fractions, in 45 samples (comprising 40 leachate, 3 groundwater and 2 surface water samples) and therefore it was necessary to undertake a more detailed Tier 2 assessment of the water results.

7.12.8 In accordance with the Controlled Waters Risk Assessment Methodology" set out in Appendix C1. Samples where T1 WQS exceedances have been identified undergo review to determine whether it is possible to exclude the DWS or EQS receptors from the T1 assessment (e.g. due to sample type / proximity to surface water etc). If it is possible to exclude the DWS or EQS receptor, the T1 exceedances can progress to a more relevant T2 (DWS) or T2 (EQS) assessment.

7.12.9 The sample specific Tier 2 Assessment Point WQS evaluation can be found in Appendix C5.3. This identifies locations where Tier 1 WQS exceedances were recorded and whether it is possible to consider further Tier 2 CWRA.

7.12.10 Seven samples (six leachate and one groundwater) were located 50m or less from a surface water and therefore have been conservatively screened against both DWS and WQS and are unable to progress to T2 WQS evaluation. A summary of the T1 WQS exceedances unable to progress to T2 are summarised in Table 7-12 below.

Table 7-12 PTS – Summary of T1 WQS Exceedances unable to progress to T2

Contaminant of Concern	WQS	WQS Source	Result	Exploratory Hole
pH	6.5 – 9.5	UK DWS	6.28	BH PTS005, 1.2m (leachate)
			6.41	BH PTS007, 0.5m (leachate)
			5.41	BH PTS011, 1.2m (leachate)
			5.81	BH PTS022, 0.1m (leachate)
Copper	1 µg/l	EQS	7 µg/l	BH PTS011 (groundwater)
			6 µg/l	BH PTS005, 1.2m (leachate)
			3 µg/l	BH PTS007, 0.5m (leachate)
			49 µg/l	BH PTS008, 0.2m (leachate)
			8 µg/l	BH PTS011, 1.2m (leachate)

Contaminant of Concern	WQS	WQS Source	Result	Exploratory Hole
			11 µg/l	BH PTS022, 0.1m (leachate)
			18 µg/l	BH PTS023, 0.2m (leachate)
Lead	10 µg/l	DWS	15 µg/l	BH PTS005, 1.2m (leachate)
			21 µg/l	BH PTS007, 0.5m (leachate)
			30 µg/l	BH PTS022, 0.1m (leachate)
			60 µg/l	BH PTS023, 0.2m (leachate)
Molybdenum	0.5 µg/l	LOD	16 µg/l	BH PTS008, 0.2m (leachate)
Zinc	10.9 µg/l	EQS	12 µg/l	BH PTS011, 1.2m (leachate)
			25 µg/l	BH PTS022, 0.1m (leachate)
			21 µg/l	BH PTS023, 0.2m (leachate)

7.12.11 35 samples (comprising 33 no leachate, 2 no. groundwater samples) which recorded exceedances of the T1 WQS were able to advance to a T2 DWS assessment. 2 no. surface water samples able to advance to a T2 EQS assessment.

7.13 Controlled Waters Risk Assessment – Tier 2 Groundwater Resource Protection

7.13.1 The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point. (e.g., a groundwater sample, distal to a surface water receptor would be assessed against Drinking Water Standards (DWS) only to protect groundwater drinking water resources.

7.13.2 The results of the Tier 2 Groundwater Resource Protection (T2 DWS) CWRA are presented in Appendix C5.5. Failures of T2 DWS are summarised in Table 7-13.

Table 7-13: PTS – Summary of T2 DWS Exceedances

Contaminant of Concern	T2 DWS	Result	Exploratory Hole
pH	6.5 – 9.5	6.17	BH PTS006 0.2m, leachate
		6.27	BH PTS010 0.3m, leachate
		6.02	BH PTS012 0.3m, leachate
		5.60	BH PTS013 1.0m, leachate
		5.83	BH PTS014 0.6m, leachate
		6.23	BH PTS017 0.4m, leachate
		5.94	BH PTS019 0.5m, leachate
		6.16	BH PTS020 0.5m, leachate
		6.33	BH PTS021 0.5m, leachate
		6.03	BH PTS022 0.2m, leachate
		5.58	TP PTS006 0.2m, leachate

Contaminant of Concern	T2 DWS	Result	Exploratory Hole
		5.90	TP PTS007 0.5m, leachate
		6.42	TP PTS009 0.5m, leachate
		5.96	TP PTS010 1.35m, leachate
		5.54	TP PTS013 0.2m, leachate
		6.44	TP PTS014 2.0m, leachate
		5.97	TP PTS015 1.8m, leachate
		5.95	TP PTS017 1.8m, leachate
		6.46	TP PTS020 0.1m, leachate
		6.44	TP PTS021 0.2m, leachate
		5.90	TP PTS024 0.6m, leachate
		6.40	TP PTS025 0.2m, leachate
		6.15	TP PTS026 0.6m, leachate
		6.03	TP PTS027 0.5m, leachate
Arsenic	10 µg/l	22 µg/l	BH PTS018 0.6m, leachate
		12 µg/l	TP PTS003 0.2m, leachate
Lead	10 µg/l	11 µg/l	BH PTS012 0.3m, leachate
		22 µg/l	BH PTS018 0.6m, leachate
		25 µg/l	TP PTS020 0.1m, leachate
		13 µg/l	TP PTS021 0.2m, leachate
		48 µg/l	TP PTS022 0.2m, leachate
		47 µg/l	TP PTS003 0.2m, leachate
		18 µg/l	TP PTS006 0.2m, leachate
		17 µg/l	TP PTS007 0.5m, leachate
		73 µg/l	TP PTS020 0.1m, leachate
		24 µg/l	TP PTS021 0.2m, leachate
		15 µg/l	TP PTS024 0.6m, leachate
		39 µg/l	TP PTS025 0.2m, leachate
		30 µg/l	TP PTS027 0.5m, leachate
Aliphatic >C12 - C16	300 µg/l	1526 µg/l	BH PTS003, groundwater
Aromatic >C12 - C16	90 µg/l	452 µg/l	
Aromatic >C16 - C21	90 µg/l	116 µg/l	

7.13.3 Total Petroleum Hydrocarbon exceedances were recorded in groundwater samples from BH PTS003 at 8.0m . Some other aliphatic and aromatic carbon bands at detectable however, no corresponding detectable concentration was recorded within the soil (solid) samples from those locations and no evidence of hydrocarbon contamination was observed within the log.

7.13.4 Minor exceedances for lead were recorded in 13 of the 34 leachate samples that were taken to T2 DWS assessment. Leachate extraction tends to overestimate the real world leachability potential of soils and it is likely the concentration of lead and arsenic being released naturally is likely to be lower – this is confirmed by the relative absence of lead in groundwater samples from the same locations have leachate and groundwater samples), it was also not detected at significant concentrations in soil samples

7.13.5 The widespread T2 DWS exceedances of lead within leachate samples has been recorded. The reason for this has not been established, however it has been speculated this may be as a result of naturally elevated background levels resulting from regional bedrock mineralisation.

7.14 Controlled Waters Risk Assessment – Tier 2 Surface Water Assessment

7.14.1 The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point e.g., a surface water sample would be assessed against EQS only, and for Surface Water protection, the assessment point (AP) is in the Surface Water, after Dilution.

7.14.2 The results of the Tier 2 Surface Water Assessment (T2 EQS) CWRA are presented in Appendix C5.6. Failures of the T2 WQS are summarised in Table 7-14.

Table 7-14: PTS – Summary of T2 EQS Exceedances

Contaminant of Concern	T2 EQS	Result	Exploratory Hole
Copper	1 µg/l	3 µg/l	SW BH PTS011
Zinc	10.9 µg/l	16 µg/l	
Aliphatic >C8 - C10	5 µg/l	23 µg/l	
Aliphatic >C10 - C12	5 µg/l	10 µg/l	
Aromatic >C10 - C12	5 µg/l	6 µg/l	
Aromatic >C16 - C21	5 µg/l	279 µg/l	
Aromatic >C21 - C35	10 µg/l	14 µg/l	

7.15 Re-use of Soils

7.15.1 Introducing a soil material re-use strategy will be consistent with National Highways' commitment to incorporate sustainable methods into the design of projects as outlined in GG103 (Introduction and general requirements for sustainable development and design, 2019). The re-use of soil materials within the scheme will reduce quantities of material destined for landfill, waste generation, unnecessary costs, and unnecessary journeys.

7.15.2 In addition, the requirement to import fill materials (and associated costs) may also be reduced. This will assist with meeting National Highways' environmental sustainability goals, including minimising greenhouse gas emissions, reducing waste generation, using

sustainably sourced materials, and being resource efficient and reflecting a circular approach to the use of materials.

7.15.3 Prior to excavations and re-use of the material, an appropriate re-use methodology and Materials Management Plan, and associated Verification Plan document, should be completed to enable the re-use of the material. The Verification Plan should identify how the placement of materials is to be recorded and the quantity of materials to be used, including a statement on how the use of the materials relates to the highway design. Verification testing results should be compared to re-usability criteria from a corresponding Series 600 Earthworks Specification and Verification Plan.

7.16 Waste Classification

7.16.1 A preliminary waste classification exercise has been undertaken in line with the guidance set out in the Environment Agency: Guidance on the Classification and Assessment of Waste Technical Guidance WM3 document (39) the results obtained from the ground investigations to determine the likely waste classification of soils within the scheme and provide a likely List of Waste (LoW) code in the event they require to be discarded as a waste.

7.16.2 The Waste Assessment methodology is outlined in Appendix C1. Soil quality data from the ground investigation was entered into the HazWasteOnline™ hazard assessment tool.

7.16.3 A total of 92 soil samples (comprising 21 from Topsoil, 18 from Made Ground, and 53 from natural superficial deposits) have been assessed using the HazWasteOnline™ tool. A Peat sample, taken at 1.2m bgl in BH PTS005, was discounted from the HazWaste Online assessment as Peat soils should be segregated and handled separately in accordance with a Peat Management Plan.

7.16.4 Of these, three from Made Ground and one natural soil sample were classified “Hazardous”, the remainder were classified as “Non-Hazardous”.

7.16.5 The results of the HazWasteOnline™ assessment are contained in the report outputs presented in Appendix C8.

7.16.6 Table 7-15 presents a summary of the samples classified as “Hazardous” following the HazWasteOnline™ assessment.

Table 7-15: PTS – Soils Classified As Hazardous Waste

Exploratory Hole	Sample Depth (m bgl)	Stratum	Risk Phrase	WAC analysis undertaken (Y/N)	Waste Classification
BH PTS001A	0.4	Made Ground	HP 3(i) Flammable HP7 Carcinogenic	Y	Passes “Hazardous” Landfill criteria
	0.7			N	N/A

Exploratory Hole	Sample Depth (m bgl)	Stratum	Risk Phrase	WAC analysis undertaken (Y/N)	Waste Classification
BH PTS023	0.5		HP 11 Mutagenic	Y	Passes “Hazardous” Landfill criteria
	1.2	Natural Strata	HP7 Carcinogenic HP 11 Mutagenic	N	N/A

8 Geotechnical Risk Register

8.1 Background

8.1.1 The geotechnical risk register brings forward unusual hazards or risks in relation to the ground that were identified during development of the PSSR. Where these have been eliminated or mitigated to some degree by the latest ground investigation, the risk has been removed from the risk register or the risk rating has been adjusted as the case may be. The purpose of the register is to record unusual risks, so a number of generic risks identified in the PSSR will be readily mitigated by good design practice and do not warrant inclusion here.

8.1.2 Further risks may be identified and the risk register will be further developed in the detailed design and construction stages.

8.1.3 In the assessment which follows, each potential risk is identified and a risk rating is assigned. This is the rating **prior** to identification of risk consequence and suitable mitigation measures.

8.1.4 From the risk matrix in Table 8-1, it is possible to provide a quantitative figure or **risk value** (R) for each of the perceived geotechnical risks, using the expression:

Risk value (R) = Likelihood or probability (P) x Impact (I)

8.1.5 The likelihood ranges from 1 (extremely unlikely) to 5 (almost certain) and impact from 1 (minor) to 5 (catastrophic). The terms for impact relate to the potential to cause damage to assets and harm to people and are defined in Table 8-1.

Table 8-1 : Package B Risk Matrix

Likelihood (P)		Impact (I)				
		1	2	3	4	5
		Minor	Moderate	Serious	Major	Catastrophic
1	Extremely Unlikely	1	2	3	4	5
2	Unlikely	2	4	6	8	10
3	Likely	3	6	9	12	15
4	Extremely Likely	4	8	12	16	20
5	Almost Certain	5	10	15	20	25

Table 8-2 : Package B Risk Description

Impact	Term	Description
1	Minor	Minor damage or loss (no human injury).
2	Moderate	Moderate damage or loss (slight injury or illness).
3	Serious	Substantial damage or loss (serious injury or illness).
4	Major	Major damage or loss (fatal injury).
5	Catastrophic	Catastrophic damage or loss (multiple fatalities).

8.1.6 The initial risk value assigned using Table 8-1 provides a risk classification as given in Table 8-3. Risk values and their classification are then graded from low to high. As noted in Table 8-3 the activity associated with the given risk value may be permitted as long as adequate controls are maintained and reviewed. However, medium risks will require additional control measures and those identified as high are not acceptable and will require elimination or reduction by suitable measures in subsequent design.

Table 8-3 : Package B Risk Classification

Risk Classification	
Low (1-8)	Ensure assumed control measures are maintained and reviewed as necessary.
Medium (9-19)	Additional control measures needed to reduce risk rating to a level that is equivalent to a test of “reasonably required” for.
High (20-25)	Activity not permitted. Hazard to be avoided or risk to be reduced to tolerable level.

8.2 Risk Register

8.2.1 Each of the identified risks at the time of writing is listed in Table 8-4 below. This register will be taken forward and developed in later stages of design, as described earlier. Table 8-4 lists each risk and states the rating before any control or mitigation is applied. The residual risk rating is then assessed, after application of appropriate measures. All residual risks must be low or medium following this process. The register is then useful as a tool to show the areas of design or development that present the highest perceived risks, allowing consideration of alternatives.

Table 8-4 : Package B Geotechnical Risk Register

Risk No	Hazard /Risk	Risk Rating Before Control			Consequence	Risk Control Measures	Residual Risk		
		Likelihood (P)	Impact (I)	Risk (R)			Likelihood (P)	Impact (I)	Risk (R)
1	Historical development.	5	5	25	Potential for contaminated materials, particularly coal tars from highway construction and ground gases.	Ground investigation and identification of in situ remedial treatments or safe removal and disposal.	4	2	8
2	Bridge and retaining structures, including culverts	4	5	20	Increased construction cost and inaccurate target cost	Fix structure locations and target ground investigation at each site, a minimum of two boreholes per abutment / structure (length dependent) to determine accurate ground model and enable cost effective foundation design.	1	5	5
3	Buried and overhead utilities, including power, gas, telecoms, Shell ethylene (NWeP), fibreoptic	4	5	20	Increased project costs for diversions, repairs, and permanent realignments. Health and Safety dangerous occurrence / human injury.	Undertake specific surveys to identify, locate and uncover all known utilities, through early discussions with stakeholders, non-intrusive and intrusive investigations to physically locate and determine mitigation measures to divert / protect / avoid as part of detailed design and construction methodology review.	2	5	10
4	Poor formation conditions	4	5	20	Increased earthworks quantities leading to claims and uplifted out-turn cost. Excessive carriageway settlement. Reputational damage.	Undertake comprehensive lime and cement stabilisation testing and trials of formation soils during detailed ground investigation phase.	2	5	10
5	Soft ground – localised peat and alluvium and compressible ground.	3	4	12	Failure of earthworks, road pavement degradation, unstable ground during construction.	Ground investigation – initial phase has not identified presence of extensive peat or alluvium, although this is expected near existing water courses. Further ground investigation needed to highlight occurrences on selected route and design measures to avoid, accommodate or treat/remove as necessary.	2	3	6
6	Existing culverts for watercourse crossings.	3	3	9	Structural damage, undermining of foundations, collapse.	Design measures to protect during extension or replacement.	2	2	4
7	Embankment construction	4	3	12	Earthwork materials need to be acceptable fills and, if not significant	Further ground investigation to confirm initial assessment of materials. Initial investigation indicates high variability and potential for	1	3	3

Risk No	Hazard /Risk	Risk Rating Before Control			Consequence	Risk Control Measures	Residual Risk		
		Likelihood (P)	Impact (I)	Risk (R)			Likelihood (P)	Impact (I)	Risk (R)
					disposal/import/sustainability issues arise.	significant soil improvement requirements (e.g., lime and/or cement stabilisation). Higher strength (>50kPa) to be used in upper 1.0m of construction			
8	Cutting construction	4	3	12	Long term stability of cutting slopes and maintenance.	Cutting slopes steeper than 1V:3H in glacial tills will be unstable. Maintenance of steep slopes presents risks to operatives. Cutting slopes to be designed for 1V:3H; where steeper by necessity of constraints, appropriate additional design (e.g., cutting face treatments) to be provided. Finished surface should be maintainable by remote controlled plant, e.g., grass cutting. Add counterfort drainage to cutting faces where granular lenses identified	1	3	3
9	Ground Investigation Data	4	4	16	Increased Construction cost. Failure to meet agreed target cost. Overdesigned structures and uneconomic designs	Undertake gap analysis of existing design against fixed route alignment and structure locations. Obtain input from DIPS contractors to GI scoping. 7Complete ground investigation and detailed G8IR phase of design, feeding into DIPS det9ailed design and costing.	1	4	4
10	Road Foundations	3	4	12	Increased construction costs from use of excess capping or sub-base materials, and / or lime treatment.	Undertake GI gap analysis and review alignments against requirement for Surface Stiffness Modulus and geological variability. This should focus on areas where the road is at grade and shallow cut for lightweight deflectometer and plate bearing testing. For deeper cuts, laboratory CBR testing at expected formation.	1	4	4
11	Existing road construction and tie ins	3	3	9	Unknown road construction at tie ins between new and existing to ensure sufficient foundation and finished levels match. Contaminated land disposal cost increase for road tar (Hazardous material Class U2).	Understand road construction and make up to include material thicknesses, and constituents, including bitumen and tar for material disposal cost analysis. Incorporation of in situ road cores to determine road stratigraphy with associated logging and testing to the next phase of investigation.	1	3	3

Risk No	Hazard /Risk	Risk Rating Before Control			Consequence	Risk Control Measures	Residual Risk		
		Likelihood (P)	Impact (I)	Risk (R)			Likelihood (P)	Impact (I)	Risk (R)
12	Driveability of sheet piles into glacial deposits	4	3	12	Inability to drive sheet piles to required embedment due to buried obstructions.	Schedule ground investigation to understand constituents of glacial soils. Schedule pile driving tests prior to construction to determine suitability.	1	3	3
13	Buried obstructions e.g., historical foundations	3	3	9	Delay to construction programme to remove foundations. Cost increase risking target cost	Review historical development at the site and schedule investigation to understand the presence of obstructions.	1	3	3
14	Ground Aggressivity	5	3	15	Deterioration of in situ concrete due to sulfate contamination.	Design in situ concrete to account for aggressive ground conditions. Further ground investigation at locations of expected buried concrete to make assessment of concrete requirements.	1	3	3
15	Shallow or perched groundwater	3	5	15	Flooding over excavations, increased water pressures behind retaining structures, implication for foundation design.	Ground investigation required to establish groundwater levels. Incorporate groundwater into detailed design.	1	5	5
16	Cut slope groundwater flow / seepage	4	4	16	Localised slope failure leading to unplanned maintenance. Increased life cost of scheme. Third party injury resulting from slope failure.	Complete further ground investigation to understand better the geology of all cut slopes. Record incidences of seepage and groundwater strike including rise or fall after 20 mins. Undertake groundwater monitoring of cut areas over a twelve month period. Implement appropriate drainage measures to manage groundwater risk.	1	4	4
17	Structural Scour	3	4	12	Compromise of foundation / structural stability	Assess scour risk at each water crossing, including culverts to ensure foundation depths and scour protection measures are suitably robust to account for worst case flood scenario.	1	4	4
18	Archaeology	4	3	12	Delay to scheme programme and elevated costs affecting project delivery.	Complete a detailed archaeological survey of the route under direct supervision of suitably qualified archaeologist, incorporate findings and solutions into detailed design.	2	2	4
19	Deep excavations / borrow pits	4	4	16	Third party injury resulting from unauthorised access.	Identify all likely borrow pit or deep excavation sites and complete rigorous programme of investigation to feed into detailed design.	1	4	4

Risk No	Hazard /Risk	Risk Rating Before Control			Consequence	Risk Control Measures	Residual Risk		
		Likelihood (P)	Impact (I)	Risk (R)			Likelihood (P)	Impact (I)	Risk (R)
					Side slope failure leading to programme delay and cost increase. Reputational damage.	Ensure all excavations and borrow pit areas fully cordoned off from the public and well sign posted to inform of dangers and no access.			

9 Engineering Assessment

9.1 Scope and Objectives

9.1.1 In accordance with the requirements of CD622 - Managing Geotechnical Risk the following section considers an Engineering Assessment of the scheme elements providing a description and justification of the geotechnical options that have been considered in the scheme development, providing justified engineering reasoning for the options considered.

9.1.2 The section considers both earthworks and structures and any specialist geotechnical measures that may be considered appropriate.

9.1.3 This section does not constitute a design, but a geotechnical appraisal.

9.1.4 Structures are considered first and are referenced in ascending chainage with assessment considering suitability of foundation type (deep or shallow). Similarly earthworks are referenced in ascending chainage.

9.2 Structures: M6 Junction 40 to Kemplay Bank Roundabout

9.2.1 Drawings presenting relevant geological information in the immediate vicinity of the structure obtained from the 2021 ground investigation with archive reference where appropriate and available are included in Appendix10A. Relevant drawing numbers are: HE565627-AMY-HGT-S01-DR-CE-000301, HE565627-AMY-HGT-S01-DR-CE-000302, HE565627-AMY-HGT-S03-DR-CE-000301.

Bridges

Kemplay Bank Bridges (East and West) and wingwalls

9.2.2 Geology: Fluvio glacial sands and gravels (FL_GT) below a variable thickness of made ground (MG_CO and MG_GR) and cohesive and sandy cohesive (GT_CO and GT_V) glacial tills varying from 1.5m (SD KBR008) to 7.6m (SD KBR005). However, the materials noted as GT_V) are coarse and although they contain greater than 15% fines are considered to represent upper layers of the fluvio glacial materials.

9.2.3 Cable percussion holes were unable to achieve the required depth. The investigation was completed to approx. 25m depth using sonic drilling.

9.2.4 The fluvio glacial materials are coarse sands and gravels with variable fine sand and silt content, but all with less than 15% overall fines content. The upper 6m to 7m of the fluvio glacial material is slightly finer and recorded as a very sandy slightly clayey gravel (GT_V).

9.2.5 Parameters for the materials are derived from laboratory shearbox tests and correlations with SPT N_{60} values. It should be noted that many of the SPT's met refusal (>50) and the majority of such refusals was below approximately 5.0m depth.

9.2.6 From the shearbox testing effective angles of friction varied from 31° to 36° with effective cohesion varying from 0kPa to 18kPa. Ignoring those N_{60} values above 50 correlation of the N_{60} values to effective angle of friction after Peck Hanson varied from one result at 25° to 39° with an average of 35°.

9.2.7 Physical constraints of limited space and high volumes of traffic flows require the bridges to be constructed 'top down' and opened to traffic prior to excavation of the main line. Therefore piling is considered to be most appropriate option for the bridges and wingwalls. Driven piling would not be considered appropriate due to the very granular deposits with the risk of larger boulders, therefore large diameter contiguous bore piling would be the only feasible option. Diameters would be dependent upon more detailed design, which is outwith the scope of this appraisal, but a minimum diameter of 1050mm would likely be required to limit the pile head deflection that would develop as excavation progressed. Pile lengths again would depend upon detailed design, but to gain satisfactory factors of safety for deflection a minimum overall pile length of 22m is likely to be required.

9.2.8 This length would be reduced in the wingwalls as retained heights decreased.

9.2.9 No groundwater was encountered during drilling and post fieldwork monitoring recorded a maximum equilibrium level of 15m bgl in borehole SD KBR007.

Carleton Hall Underpass

9.2.10 Extension to the existing underpass to the north.

9.2.11 No current boreholes were carried out during the 2021 GI. Information is currently based upon archive holes from the development of Penrith Bypass in the 1960's. Three archive boreholes at the bridge location record fluvio glacial deposits at shallow depth to the north of the bridge. To the south 3.8m glacial till was recorded overlying the fluvio glacial sands and gravels.

9.2.12 The boreholes are recorded as being drilled at a ground level of just over 118m aod. Available information from OS 5m DTM modelling plus additional Sensat data indicates current ground level to be circa 122m. Benchmark and spot height data from Archive OS maps indicate ground level to be 385 ft (117.3m) at the approximate location of the bridge. As built information for the bridge records very deep strip foundations.

9.2.13 It is therefore assumed that ground levels are reasonably accurate and the current road at the underpass has been raised on imported fill during or post the construction of the Penrith Bypass.

9.2.14 To form suitable foundations for the bridge extension it is therefore probable that short bored piles will be required to provide a bearing into the fluvio glacial sands and gravels. Although no test information is available within the immediate vicinity, parameters from testing of the same horizon during the current GI indicate effective angles of friction between 33° and 39°

which would provide a conservative bearing value in excess of 2000kPa on the gravels for pile end bearing.

9.2.15 Groundwater levels in the available boreholes indicate levels at about 115m to 116m aod.

Retaining Structures

Retaining Wall 101

9.2.16 M6J40 Southbound off-slip

9.2.17 Geology: One trial pit TP M6J40.005 excavated to 1.2m bgl and recorded a cohesive glacial till described as stiff closely laminated slightly sandy clay. A psd confirmed a fine silty clay and Atterberg limits indicate a clay of medium to high plasticity.

9.2.18 Although only the one pit carried out for this location historical information from M6 construction confirms descriptions of firm and firm to stiff laminated silty and gravelly glacial tills. No undrained shear strength information is available from direct tests, but an estimation can be made based on description of 'firm' equivalent to approximately 45kPa to 75kPa.

9.2.19 Various options of retaining wall design have been considered from 'standard' L shape with heel, to gabions to sheet piles. For the proposed retained height of just over 3.0m all will be suitable, but standard systems of gravity types are probably easier to construct and will act suitably against overturning and sliding, providing some 500mm overdig and replace with imported granular material (6N) is incorporated to provide the necessary base frictional resistance to sliding.

Retaining Wall 102

9.2.20 A66 Westbound exit to M6 slip. Max retained height 3.8m

9.2.21 Geology: Boreholes SD M6J40.005a and BH M6J40.005-2 record stiff cohesive glacial till to approximately 9.0m bgl. It is considered this material is reworked till forming the engineered earthworks of the western end of the Penrith Bypass. Below the engineered fill (till) coarse fluvio-glacial sands and gravels are recorded to 17.0m bgl overlying cohesive glacial till (natural).

9.2.22 SPT N values in the cohesive engineered fill vary from 8 at 1.2m bgl to 29 and 38 at 8.5m (BH's SD M6J40.005a, and BH M6J40.005-2 respectively) confirming firm to stiff (medium to high strength). Five quick undrained triaxial tests were carried out on undisturbed samples. Results varied from 31kPa at 2.5m rapidly increasing to 95kPa and higher.

9.2.23 In terms of strength the ground is suitable for various construction options (sheet piles, bored piles with capping beam, standard L shape), although the restricted access would favour a low headroom rig to install bored piles with capping beam and retaining wall section cast above.

Retaining Wall 103

9.2.24 M6J40 Southbound on slip widening

9.2.25 The nearest borehole is BH M6J40.005-2 recording firm to stiff cohesive glacial till overlying very sandy till. As the borehole is at a higher elevation than the point of construction for Wall 103 it is estimated the sandy clay will be encountered at approximately 2.0m bgl. One nearby archive borehole from the M6 construction recorded stiff till to 7.0m overlying dense grey sands and gravels (possibly fluvio-glacial).

9.2.26 The firm to stiff tills will provide adequate foundation for the proposed low retaining structure (retained height of 1.1m). Dig and replace with up to 500mm 6N would not be necessary as the clay would provide sufficient sliding resistance.

Retaining Wall 201

9.2.27 Chainage 10400

9.2.28 Geology: From archive logs and the nearest 2021 GI boreholes (BH KBR002) cohesive (GT_CO) and sandy cohesive (GT_V) glacial till overlying fluvio glacial deposits. The retaining wall is likely to be founded onto the cohesive material rather than granular and is proposed to reach a maximum retained height of 4.5m.

9.2.29 The nearest borehole 736075 (archive) recorded loose brown clayey sand to 1.1m overlying firm cohesive till. Assuming the structure will be founded on the cohesive till a standard L shape construction will be satisfactory with short toe but minimum heel length of 3.0m behind the stem. Alternatively a gravity gabion construction would also be suitable.

Kemplay Bank Retaining Walls (East and West)

9.2.30 Retaining structures to the west and east of each of the Kemplay Bank Bridges to form the grade separated approaches to upper and lower levels of the circulatory.

9.2.31 Approximate chainages are: west side Ch.10520.00m to Ch.10750.00m; and east side Ch.10915.00m to Ch.11165.00m.

9.2.32 The underlying geology is as section 9.2.2 with predominantly fluvio glacial deposits overlain by up to approximately 3m made ground which is considered likely to be engineered fill associated with the Penrith Bypass construction in the 1960's.

9.2.33 Due to the constraints and geometry of the current road alignment the horizontal separation between slip roads and main line is less than 7.0m at maximum vertical separation with a height difference of up to approximately 8m.

9.2.34 To accommodate this steep slope one option would be a continuation of the contiguous piling used for the bridge construction. Bridge wingwalls would be formed parallel to the main carriageway and extended over the lengths of the above chainages to support the elevated

slip roads. Retained heights and equivalent toe depths would reduce with increasing distance from the bridges.

9.2.35 A Value Engineering appraisal concluded that an alternative option of cutting engineered slopes reinforced with soil nails would be feasible. Cutting the slopes to a maximum required angle of 51^{o} and reinforcing with soil nails at between 1.5m and 2.0m centres as excavation progressed would be not only feasible, but more cost effective.

9.2.36 Nails would be hollow at minimum 32mm diameter drilled at between 26° and 30° to horizontal with lengths of up to 9.0m to achieve satisfactory pull- out resistance.

9.2.37 Although Detailed design would focus on specific lengths, spacings, head plates and facing materials it is considered for optimum results of face retention and aesthetic vegetation growth a composite geomat with reinforcing (e.g. Maccafferri MacMat R) would be appropriate.

Retaining Wall 202

9.2.38 A66 Westbound widening - approx. chainage Ch 11120 to Ch 11310

9.2.39 Geology: Natural geology is recorded as fluvio glacial sands and gravels (FL_GT). The existing A66 is built on embankment above this level to a height of approximately 5.5m to 6.0m. The existing embankment has not been investigated at current GI due to severe TM (Traffic Management) restrictions during the 2021 fieldwork. It is conjectured from archive investigative reports (A66 west of Brougham Bridge Mouchel June 2015) that it is likely to be constructed of cohesive engineered fill (reworked cohesive glacial till) described as stiff reddish brown slightly sandy slightly gravelly clay rather than granular fill which was recorded as east of the Brougham River Crossing.

9.2.40 Estimated undrained strength parameters were derived from SPT N values in the above report providing conservative shear strengths not less than 100kPa.

9.2.41 Constraints of emergency vehicle access to Police Headquarters at Carlton Hall require the retaining structure to be built into the existing embankment, access being either from the main highway or laterally along a temporary haul road benched into the embankment. The former is probably the safer access.

9.2.42 Options for construction are either bored piling, capping beam and upstand or standard precast L units.

9.2.43 Piling is not very feasible as the space required for formation of a suitable piling platform is very limited and would require a lateral haul road from the eastern end of the embankment.

9.2.44 Precast panels would be suitable and a preferred General Arrangement sketch is shown in drawing HE565627-AMY-HGT-S01-DR-CE-000302. The addition of 450mm 6N below the panels will dissipate the excess toe pressures from the eccentric loading.

9.3 Structures: Penrith to Temple Sowerby

Bridges

Brougham Accommodation Overbridge

9.3.1 New overbridge approx. Ch 20385. Relevant boreholes BH PTS001A; BH PTS002: BH PTS003.

9.3.2 Geology: Indicated to be principally cohesive glacial till with lenses of granular till. The cohesive tills are indicated to be firm to stiff with moisture contents between 5% and 11%. Undrained shear strengths derived from SPT N_{60} values vary between 100kPa to over 200kPa.

9.3.3 Effective friction angles for the granular materials derived from SPT N_{60} values vary from 33° to 42°. Two results from shearbox testing confirm the SPT derivations returning effective friction angles of 38° and 50°.

9.3.4 Although bedrock was not encountered during investigation most SPT's reached refusal (>50) below 3.0m to 4.0m below ground level.

9.3.5 It is therefore considered appropriate that shallow foundations would be suitable for this structure.

Shell Pipeline Slab

9.3.6 Protection for the buried 250mm Shell Oil pipeline which currently crossed the A66 at approx. chainage 20620.

9.3.7 The current proposal is to form a 250mm thick rc slab spanning the pipeline with a 2.0m offset clearance either side. Two slabs would be created spanning east and west bound carriageways respectively.

9.3.8 Slabs would be constructed just below finished road level with an allowance for 110mm bituminous surfacing (binder and wearing course). A void would be incorporated below the slab to ensure no vertical stresses are transmitted through the soil to the pipeline.

9.3.9 The geology has been assessed principally from historic information (TP's 763154, 763155 and 763180) which are the closest to the route and are presumed to have been drilled to inform the original slab. TP's ~154 and ~155 record medium dense to dense SAND or sandy GRAVEL overlying weak (weathered) Penrith Sandstone at between 2.3m to 3.0m. TP 763180 records dense SAND from 0.5m depth to the base of the trial pit at 3.0m.

9.3.10 A shallow strip foundation would be suitable for the protection slabs. Conservative presumed bearing values for the sand and gravel (weathered Sandstone) would be of the order of 700kPa. Foundation depths should not be less than 0.9m bgl partly to ensure a good placement into the weathered rock, but principally to ensure the horizontal stress increases on the pipeline from the foundation load will be minimal. For a 2.0m lateral offset and 0.3m

vertical difference from foundation to pipeline, the net increase in vertical stress will be essentially zero and horizontal stress increase will be approximately 12kPa.

9.3.11 A geological cross section is provided in drawing no. HE565627-AMY-HGT-S03-DR-CE-000301.

Whinfell Park Accommodation Underpass

9.3.12 Accommodation Underpass at approx Chainage 21930.

9.3.13 Two relevant boreholes (BH's PTS010 and PTS011) record Penrith Sandstone at approximately 114m aod between 5m and 6m below existing ground level. BH PTS 009 some 100m to the west records coarse granular deposits considered to be fluvio glacial overlying SAND (possibly weathered bedrock) at similar depths.

9.3.14 Overlying the bedrock at the structure location are deposits of cohesive till (GT_CO) and sandy cohesive till (GT_V).

9.3.15 It is assumed the structure will be box section and no problems are envisaged with excavation and construction. No ground water was recorded during the investigation.

Centreparcs Bridge

9.3.16 Approx chainage 23080

9.3.17 Relevant boreholes are BH's PTS017 and PTS018.

9.3.18 Both boreholes record Penrith Sandstone between 7.7m and 8.5m bgl (at approximately 124m aod. Both boreholes record layers of Sand, weathered Penrith Sandstone or other granular material (GT_S) immediately above.

9.3.19 Although the GT_V material is predominantly classified as cohesive due to having greater than 15% fines, testing on relevant samples from the two boreholes indicate it to be acting as a granular material. Shearbox testing returned effective angles of shearing resistance of greater than 33° on all samples below 2.0m depth. Regarding the material as effectively cohesionless, SPT N_{60} correlations with angle of shearing resistance after Peck et al return values not less than 30°.

9.3.20 Based on the minimum likely value of friction a conservative presumed bearing value of not less than 700kPa would be appropriate for shallow foundation design.

Retaining Structures

RW301 and RW302

9.3.21 Retaining walls between approximate chainages 20450 and 20600 on either carriageway. RW301 is proposed on the eastbound carriageway to provide support in shallow cut (2.5m) to ensure an electricity pylon some 20m to the north is kept outwith the zone of influence of any earthworks. RW302 is on the westbound carriageway and is proposed at similar retained height to provide similar level of protection to an ancient monument (The Countess Pillar)

9.3.22 Ground conditions are indicated to be principally cohesive glacial till overlying weathered Penrith Sandstone. The retained material is likely to be cohesive till with the wall founded at shallow depth (approx 0.5m bgl). For worst case it is assumed the walls will be founded onto cohesive till.

9.3.23 For an assumed 'L' shaped geometry of 2.0m base width stability against overturning, bearing and sliding is satisfactory.

Culverts

Lightwater Culvert

9.3.24 Chainage 20860, proposed as a pre cast concrete box culvert 3.65m wide by 2.4m in height to extend the existing culvert.

9.3.25 A combination of archive logs and current GI information indicates alluvial material of soft to firm sandy clay to the north of the alignment and Peat recovered within BH PTS005 to the south of the alignment. The alluvial material is up to 2.1m thick (BH 763122 (archive)) and overlies weathered Penrith Sandstone reported as granular till or fluvio glacial materials in BH PTS005 and archive BH 763123.

9.3.26 Excavation of the peat deposits will be required and some excavation of the soft alluvial sandy clay is also likely.

Swine Gill Culvert

9.3.27 Chainage 24230, proposed as precast concrete pipe 1.5m diameter also extending the existing.

9.3.28 Ground indicated to be mixture of cohesive and sandy cohesive lenses overlying weathered sandstone recorded as SAND. Although there was no indication of alluvial material it may be present although quantities are not anticipated to be significant.

9.3.29 The cohesive soils are indicated to be firm to stiff with undrained shear strengths in excess of 60kPa. The granular materials are indicated as medium dense with angles of internal friction between 35^{o} and 39^{o}.

9.4 Earthworks M6J40 & Kemplay Bank

Introduction

9.4.1 Principal earthworks are the formation of dedicated left turn slip roads for all roads at Junction 40 of the M6 and a grade separated junction at Kemplay Bank formed by excavating an underpass for the mainline (A66) carriageway. Additional slip roads will be required.

9.4.2 Earthworks sideslopes are proposed at 1V:3H. There may be opportunity to increase slope angles in the granular deposits where effective angles of friction are higher than in the

cohesive deposits or by judicious application of counterfort face drainage. Values of potential changes are beyond the scope of this report and will be a focus of PCF Stage 5 detailed design.

Materials Overview

9.4.3 Material properties have been discussed at length in preceding sections. This appraisal discusses the types of materials with respect to overall proportionate quantities, probable percentages acceptable for general earthworks, pavement subgrades and slope stability. Where soil improvement or stabilisation may be required or desirable a brief discussion on the available techniques is presented.

9.4.4 Due to the large range of variables within any data set probability theory has been used to assess outcomes. A numerical count of data variables against a threshold risks omitting trend perceptions and can result in inaccurate predictions. In this case although the data sets are almost all skewed there are sufficient variables (>50) within any data set to satisfactorily use a normal distribution analysis.

9.4.5 Topsoil overlies the route, although its location is limited to verges and other soft landscaped areas. Records where topsoil was recorded indicate an average thickness of 350mm, but as indicated in Figure 9-1 below there is considerable variation.

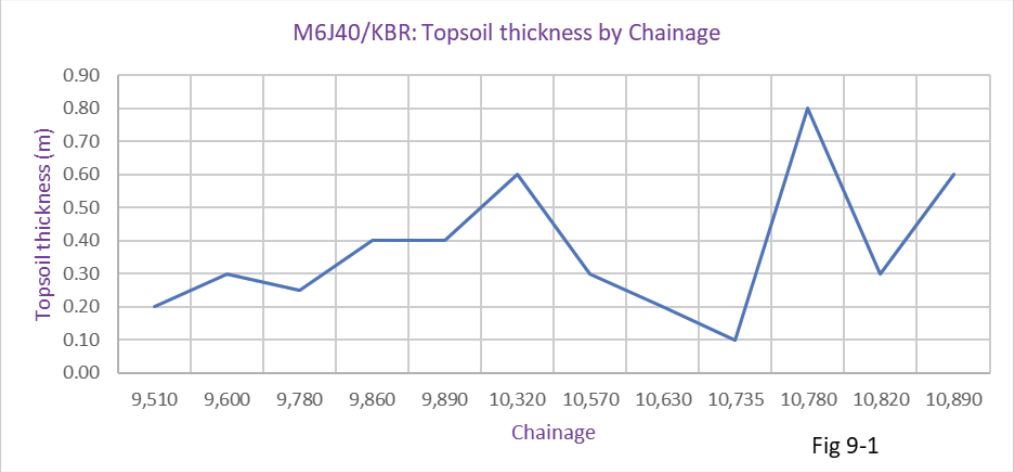

Figure 9-1 Topsoil thickness by Chainage (M6 to Kemplay Bank)

9.4.6 Materials at the western and eastern ends of the scheme are principally cohesive glacial tills represented as Engineered Fill (Made Ground) associated with the construction of the Penrith Bypass in the 1960's.

9.4.7 Kemplay Bank area is underlain principally by fluvio glacial sands and gravels (FL_GT) to minimum proven depths of some 23m bgl.

Table 9-1 Estimated proportion of materials (M6J40 to Kemplay Bank)

M6J40/KBR	Material				
Type	Cohesive		Granular		
Description/GEOL	Cohesive till GT_CO	Sandy cohesive till GT_V	Granular till GT_S	Sand SAND	Fluvio glacial deposits FL_GT
Estimated percentage of total materials	30.5%	18.9%	7.8%	0.0%	42.8%
Overall % each	49.4%		50.6%		

9.4.8 To assess levels of acceptability, the principal criteria upon which such is based needs to be established. The road is expected to require a Pavement Foundation Class of 3 as defined in CD 225 Design for New Pavement Foundations. This requires a foundation modulus of 200MPa and minimum Subgrade Surface Modulus (SSM) of 30MPa. Failure to establish the minimum value of SSM will require either excavation and replacement up to 1.0m or soil improvement. Although a minimum undrained shear strength of 40kPa is often cited as the lowest permissible value compatible with the trafficking and handling of cohesive materials a value of 50kPa is often applied to ensure variabilities during site works are safely accommodated.

9.4.9 Based on the above principles, a statistical analysis of the materials versus these two criteria gives a probability of percentage acceptability. Figure 9-2 presents the data for undrained shear strength. Figure 9-3 presents the analysis for SSM for cohesive materials based on a combination of laboratory CBR converted to modulus, plate tests converted to modulus and Lightweight deflectometer results. A chart of SSM versus advancing chainage for all test and material types is given in Appendix B.

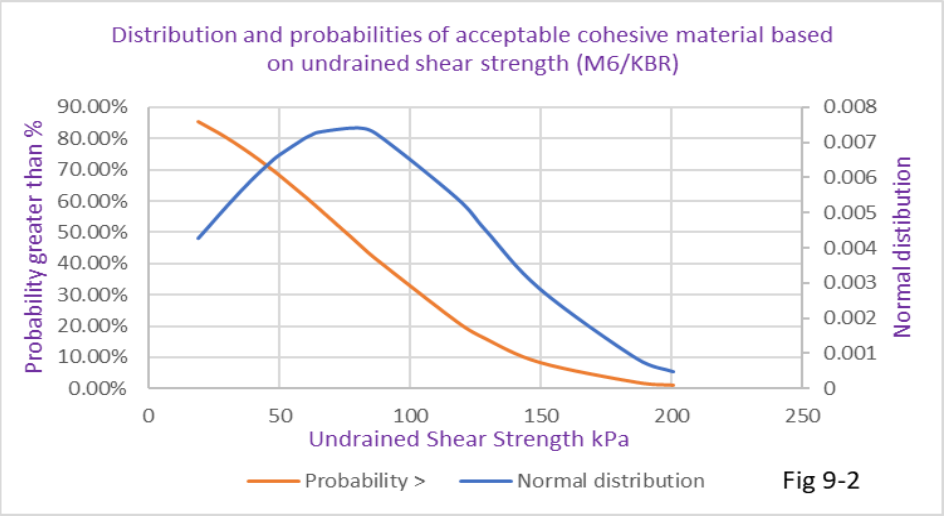

Figure 9-2: Distribution of c_u (M6/KBR)

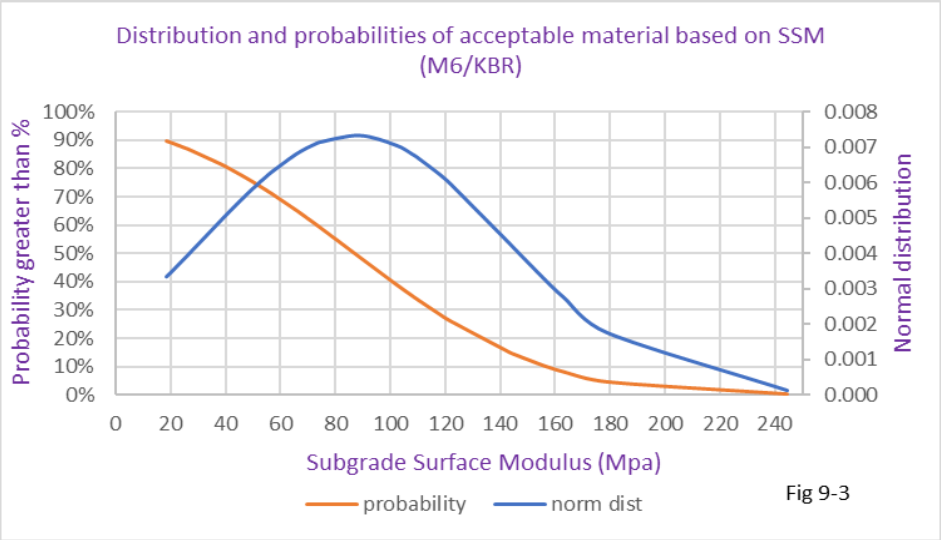

Figure 9-3: Distribution of SSM (cohesive)

9.4.10 Reference to the charts indicates that approximately 70% of the cohesive material will be acceptable as general cohesive fill based on undrained shear strength (50kPa), but this increases to approximately 85% if based upon SSM (30MPa). A judicious earthworks strategy for ensuring that the better materials are deployed in the upper levels of embankments should be developed.

9.4.11 Similar assessments of probability for the granular materials indicate that at least 85% of the granular materials (GT_S) will exceed SSM of 30MPa. All of the available SSM results for Fluvio glacial materials (FL_GT) exceeded 50MPa.

9.4.12 Although the moisture condition value (MCV) is not a definitive primary parameter, it is frequently used to manage acceptability on site and if MCV values are to be employed further work is required to develop the moisture content/mcv relationship in association with MDD/OMC to establish limits equating to 95% compaction. Based on the limited current information for OMC/MDD relationship for the cohesive materials and the mcv/mc correlations, a probable range of mcv's between 6 and 13 would appear appropriate.

9.4.13 No presence of Class U1B materials has been indicated. One occurrence of Class U2 material was identified from SD005a at a depth of 3.55m. The location is unlikely to be affected by excavation therefore it is currently considered low risk. Although not confirmed, coal tar binder, a Class U2 material, is considered possible in the lower levels of the existing A66 carriageway. The existing carriageway will be realigned to form new slip roads and removed completely over the grade separated junction at Kemplay. Tar bound material will be required to be identified and removed from site. It is however understood that ongoing research for low temperature remediation of tar based binders may enable future re-use of such materials rather than automatically being removed.

M6Jnc 40 - Combined Earthworks

9.4.14 Earthworks associated with Junction 40 are a combination of cuttings and embankments widening for the formation of additional dedicated left turn slips. From the 2021 GI and archive information associated with the M6 construction geological conditions are generally firm sandy glacial till overlying fluvio glacial sands and gravels. For the proposed works, the fluvio glacial materials are not expected to be encountered.

M6J40 Northbound On-slip

9.4.15 Widening of existing slip road from A66 Eastbound. Ground indicated to be cohesive or sandy cohesive till some of which could be reworked (engineered) material. LWD tests in TP's M6J40 003 and 004 returned SSM results averaging slightly in excess of 20MPa. SSM calculated from Lab CBR tests returned values of less than the minimum required 30MPa. Although these were excavated adjacent to existing running lanes the results would indicate a requirement to excavate and replace with additional uplift material.

M6J40 Southbound Off- slip

9.4.16 Widening to the east of current alignment incorporating Retaining Wall 101 and continuing to form continuous slip onto the A592 Ullswater Road into Penrith.

9.4.17 SSM values from lab CBR indicate reasonable values in excess of 60MPa, although corresponding results from LWD produced much lower values (<30MPa). It is likely that the lab tests produced higher values due to recompaction achieving a higher density.

9.4.18 Overdig and replace should be allowed for with the excavated material being unacceptable for re-use.

A592 Southbound Off-slip

9.4.19 Widening to produce dedicated left turn slip onto A66, requiring a lateral embankment extension up to an approximate height of 3.5m. The underlying geology is natural ground of soft to firm cohesive glacial till with undrained shear strengths derived from SPT N60 correlation of between 40kPa and 150kPa. These are adequate for the earthworks construction although localise soft spots may exist.

9.4.20 A starter layer of free draining material (6B or 6C) or equivalent geotextile will be required.

A66 Westbound Off-slip

9.4.21 Embankment widening adjacent to Skirsgill Depot which will be laterally supported by a retaining wall (RW 102) between chainages 9800 and 9970 already discussed in section 9.2.20.

9.4.22 Adjacent to the interchange circulatory the new left lane onto the M6 Southbound will be close to grade or very shallow cut.

9.4.23 The ground is described as cohesive tills either as Engineered Fill (MG_CO) or natural cohesive till (GT_CO) to depths of approximately 9.0m. Only one lab CBR is available indicating an SSM value of 25MPa at 2.5m depth. Undrained shear strengths generally are at variance with this low value and indicate higher subgrade strengths (114kPa at 1.5m depth in BH M6J40.005 and 55kPa at the same depth in SD M6J40.005). Although SSM/ c_u relationships vary by researcher correlations for this project so far indicate a logarithmic correlation such that the values of cu above may be related to SSM values of 75MPa and 43MPa respectively.

9.4.24 The southbound slip to M6 is supported by Retaining Wall 103 and has been discussed above in section 9.2.24.

M6J40 Northbound Off-slip

9.4.25 Widening into existing cut slope to provide dedicated left turn. Geology is indicated to be principally cohesive Made Ground of reworked (Engineered) glacial till. Undrained shear strengths from hand vane tests record values between 55kPa and 68kPa, although one lab CBR test in TP M6J40.001 returned a very low value of 1.2% (equivalent SSM of 20MPa). The mc for this sample was very high at 18%.

9.4.26 SSM value from LWD for M6J40 HTP.009 at 0.5m was 72MPa.

Cuttings

9.4.27 Cuttings in general will be formed with 1V to 3H sideslopes. Top of crest drainage is to be provided particularly where existing topography slopes towards the cutting and where composite materials of granular and cohesive are exposed in the face, counterfort drainage should be provided to ensure seepages from the granular materials are controlled, even where quite thin granular exposures occur. Toe of batter drainage will be required in accordance with SHW Clause 500.

Kemplay Bank Ch 10520 to Ch 11100 (approx.)

9.4.28 An extensive cutting to a maximum depth of some 8.0m to form a grade separated junction taking the mainline east west (A66) under the A6. New bridges will carry the north south flow and they have been discussed in section 9.2.

9.4.29 The underlying geology is already described in sections 9.2.2 to 9.2.6 comprising predominantly coarse fluvio glacial sands and gravels overlain by approximately 1.5m to 2.0m cohesive tills considered to be engineered fill associated with the construction of Penrith Bypass.

9.4.30 Between the two bridges the cutting will accommodate standard sideslopes of 1v to 3h, although the extensive fluvio glacial material, low water table and an effective angle of shearing resistance greater than 33° may accommodate steepening to 1v to 2.5h. Pore pressure ratios in the coarse gravels and sands are likely to be low values.

9.4.31 The approaches however are constrained by existing infrastructure restricting land take such that sideslopes will need to be a nominal 50°, varying slightly along the lengths. Two options of cutting support are considered:

- Contiguous piling, and
- Soil nailing using top down construction.

9.4.32 As top down construction using contiguous piling is already proposed as the optimum solution for the bridges and wingwalls (9.2.7), there is a logic in continuing piling rig deployment to construct support walls for the cutting. Design of the cantilever piles would be undertaken at Stage 5 and it is anticipated that 'fixed earth' support would be used to avoid any reliance on tension ground anchors. The system requires adequate toe depths of approximately twice the retained height essentially demanding that all piles achieve such. Large diameter bored piles should be capable of achieving the required depths through the fluvio glacial material, although there is always a risk with piling that some fail to achieve this.

9.4.33 A soil nailing approach progressively deepening the cutting in stages as nailing proceeds has been examined for feasibility. It is anticipated that excavation would commence at the outer ends of the approach cuttings with nails being installed as depth increases in increments of between 1.5m and 2.5m. It is indicated that the outer ends will be in engineered cohesive fill where temporary cut depths could potentially be increased prior to nailing. Facing would be a proprietary flexible structural mesh incorporating a non-degradable 3 dimensional matrix to accept light application of topsoil to enhance vegetation growth.

9.4.34 It is conceivable that nailing could operate concurrently with piling operations.

9.4.35 Material excavated would be at least 85% acceptable for re-use. Some of the engineered fill may contain oversize particles (>125mm). The fluvio glacial material will be acceptable as a Class 1A or Class 1C material.

9.4.36 For pavement design the SSM for the Fluvio glacial material averaged over 100MPa with some 80% exceeding 55MPa. The cohesive materials indicate a mean of 60MPa with 80% greater than 30MPa.

Embankments

Ch 10100 to Ch 10740

9.4.37 Embankment extension to accommodate dedicated left lane from A6 north bound off slip along A66 westbound.

9.4.38 Lack of current GI information due to land access restrictions during 2021 GI. To be targeted as part of Phase 2 GI in 2022.

9.4.39 The geology is likely to be the fluvio glacial materials forming the outwash fan extending across Kemplay Bank and discussed earlier. Construction is not expected to present any

issues. Further GI will enable further assessment including whether a granular starter layer is required following topsoil strip.

Ch 10910 to Ch 11300

9.4.40 New embankment to form eastbound entry slip onto A66..

9.4.41 Geology indicated to comprise variable layer up to 2.0m thick of slightly clayey sands and gravels (fluvio glacial FL_GT) overlying firm to stiff cohesive glacial till (GT_CO).

9.4.42 Construction is not expected to present any issues. Further GI will enable further assessment including whether a granular starter layer is required following topsoil strip.

SUDS Ponds

9.4.43 SUDS ponds locations were investigated based upon proposed locations at the time of the 2021 GI. Three SUDS ponds are currently proposed for M6J40 and Kemplay Bank sections although only two were investigated. A location to the south of the existing A66 at start chainage 9200 was not incorporated in the scope at the time of current GI execution.

9.4.44 To the south of Chainage 10300 below the toe of the current embankment TP KBR003 investigated the conditions for a pond at the toe of the slope. The trial pit confirmed that fluvio glacial sands and gravels were present to a depth of at least 3.5m. Upper layers appeared to contain some fines and descriptions of 'clayey' are noted. Soakaway testing was not undertaken, but psd analysis indicated a D_{10} size of 0.63mm which can be equated to an approximate permeability value of 2E-3m/s from Hazen's Formula.

9.4.45 A suds pond proposed at approximate chainage 11600 to the south of the carriageway was investigated from TP KBR009. The proposed pond has been relocated subsequent tot eh investigation and the trial pit may no longer reflect the conditions. The geology is indicated to be sandy clayey Gravel overlying a band of gravelly laminated clay at 2.3m extending to at least 2.5m bgl. A soakaway test to BRE was conducted and indicated zero or indeterminate infiltration no doubt due to the laminated clay layer.

9.4.46 Psd tests on a sample of the gravel overlying the clay indicated a permeability of 2E-6 from Hazen's Formula derivation.

9.4.47 It is anticipated that the laminated clay lens may be local and of limited vertical extent and that further investigation at the revised location may produce more favourable results for infiltration design.

9.5 Earthworks: Centerparcs

Introduction

9.5.1 The proposed route follows the existing A66 over the majority of the route with the current carriageway being regraded to form the new eastbound lanes. Widening to the south will form the new westbound lanes.

9.5.2 The construction is principally at grade or shallow cut, although a new embankment to form the Centerparcs Junction is required.

9.5.3 Earthworks sideslopes are proposed at 1V:3H. There may be opportunity to increase slope angles in the granular deposits where effective angles of friction are higher than in the cohesive deposits or by judicious application of counterfort face drainage. Values of potential changes are beyond the scope of this report and will be a focus of PCF Stage 5 detailed design.

Materials Overview

9.5.4 Material properties have been discussed at length in preceding sections. This appraisal discusses the types of materials with respect to overall proportionate quantities, probable percentages acceptable for general earthworks, pavement subgrades and slope stability. Where soil improvement or stabilisation may be required or desirable a brief discussion on the available techniques is presented.

9.5.5 Due to the large range of variables within any data set probability theory has been used to assess outcomes. A numerical count of data variables against a threshold risks omitting trend perceptions and can result in inaccurate predictions. In this case although the data sets are almost all skewed there are sufficient variables (>50) within any data set to satisfactorily use a normal distribution analysis.

9.5.6 Topsoil overlies the route, although its location is limited to verges and other soft landscaped areas. Records where topsoil was recorded indicate an average thickness of 350mm, but as indicated in Figure 9-4 below there is considerable variation.

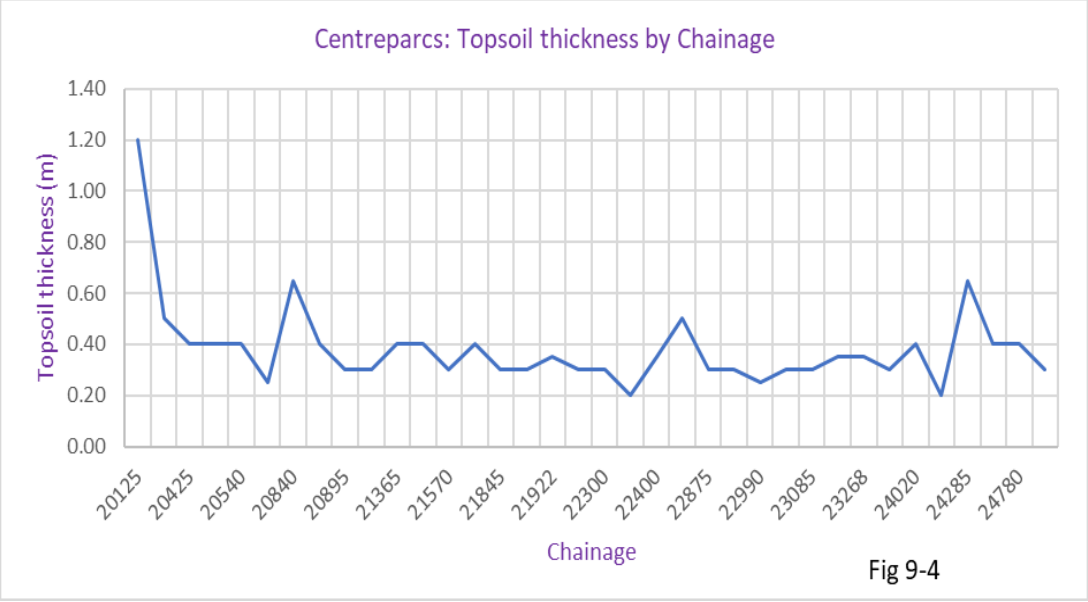

Figure 9-4: Topsoil thickness by chainage (Centerparcs)

9.5.7 Materials are a combination of cohesive and granular tills overlying relatively shallow bedrock of Penrith Sandstone. The sandstone itself is overlain by a variable thickness of weathered rock represented by either sand of reddy sands with gravel (SAND or GT_S). Based upon total exploratory depths during the 2021 ground investigation an estimate of proportion can be established. Such estimate is presented in Table 9-2 below.

Table 9-2: Estimated proportions of materials (Centerparcs)

	Material					
Type	Cohesive		Granular			ALV
Description /GEOL	Cohesive till GT_CO	Sandy cohesive till GT_V	Granular till GT_S	Sand SAND	Fluvio glacial deposits FL_GT	Peat
Estimated percentage of total materials	32.1%	22.7%	27.4%	7.0%	9.9%	0.9%
Overall % each	54.8%		44.3%			0.9%

9.5.8 To assess levels of acceptability, the principal criteria upon which such is based needs to be established. The road is expected to require a Pavement Foundation Class of 3 as defined in CD 225 Design for New Pavement Foundations. This requires a foundation modulus of 200MPa and minimum Subgrade Surface Modulus (SSM) of 30MPa. Failure to establish the minimum value of SSM will require either excavation and replacement up to 1.0m or soil improvement. Although a minimum undrained shear strength of 40kPa is often cited as the lowest permissible value compatible with the trafficking and handling of cohesive materials, a value of 50kPa is often applied to ensure variabilities during site works are safely accommodated.

9.5.9 Based on the above principles a statistical analysis of the materials versus these two criteria gives a probability of percentage acceptability. Figure 9-5 presents the data for undrained shear strength. Figure 9-6 gives the analysis for SSM for cohesive materials based on a combination of laboratory CBR converted to modulus, plate tests converted to modulus and Lightweight deflectometer results. A chart of SSM versus advancing chainage for all test and material types is given in Appendix B.

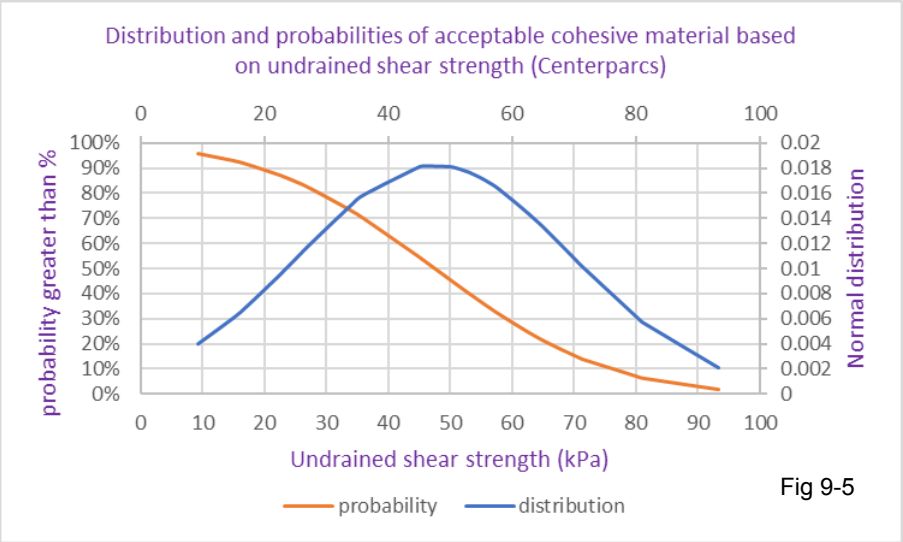

Figure 9-5: Statistical distribution of undrained shear strength (Centerparcs)

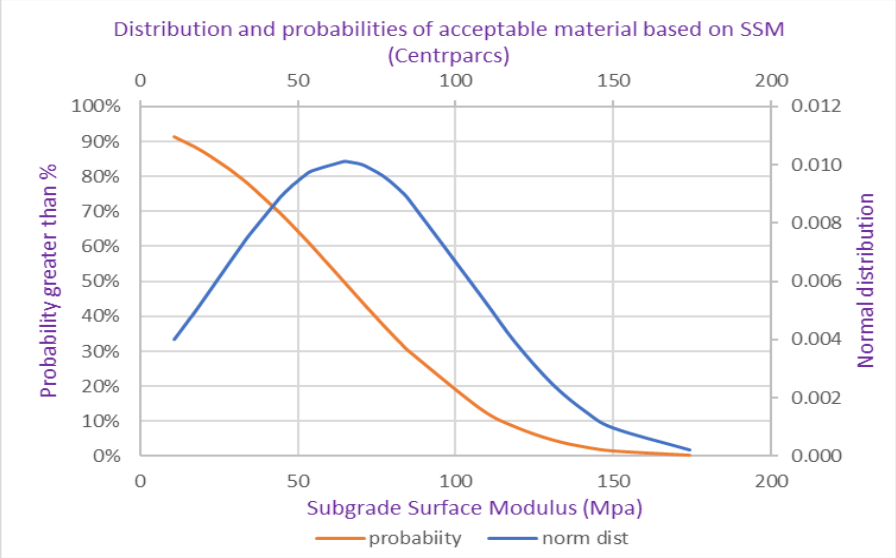

Figure 9-6: Statistical distribution of acceptable cohesive material based on SSM (Centerparcs)

9.5.10 Reference to the charts indicates that less than 50% of the cohesive material will be acceptable as general cohesive fill based on undrained shear strength (50kPa). However almost 80% of the samples tested indicated an expectation of SSM values above the minimum required SSM of 30MPa. A judicious earthworks strategy for ensuring that the better materials are deployed in the upper levels of embankments should be developed. Attention is drawn to the data limitations.

9.5.11 The SSM values by chainage are indicated in Figure 9-7. It will be noted that lab derived values from CBR tests generally indicate higher values than the plate tests. The PLT were carried out in accordance with BS1377 Part 9, IAN73/06 and reference to MCHW 1/600 with only a single load cycle to give deformation of approximately 1.25mm (IAN 73/06). A second cycle was not conducted, but determination of E_2 (from a second cycle) is considered to

represent a better evaluation of stiffness and more appropriate to values that may be obtained following earthworks trafficking.

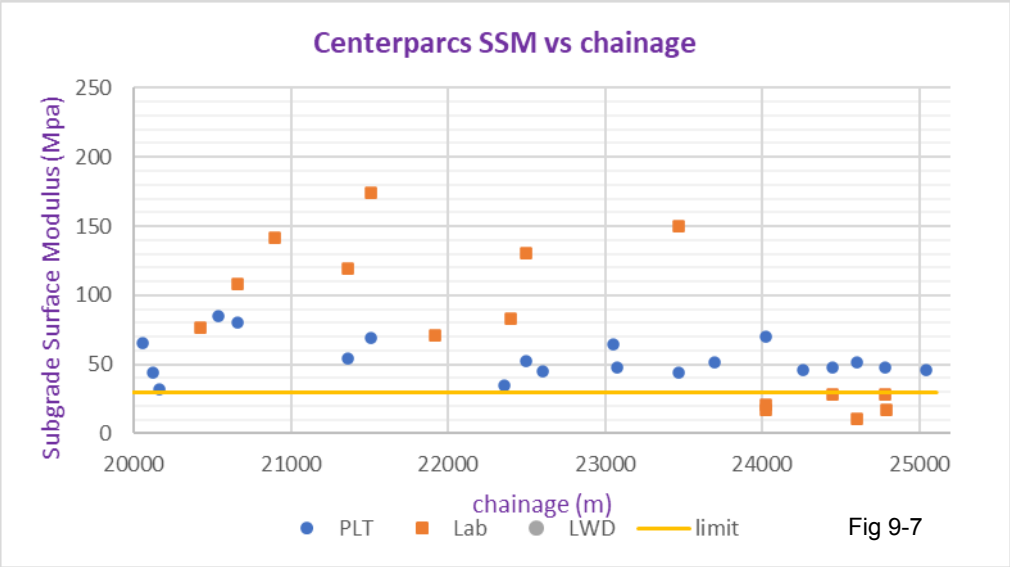

Figure 9-7: SSM by chainage (Centerparcs)

9.5.12 Similar assessments of probability for the granular materials indicate that at least 85% of the granular materials (GT_S) will exceed SSM of 30MPa. All of the available SSM results for SAND exceeded 33MPa.

9.5.13 Moisture contents do not exhibit a strong correlation with either depth or shear strength and no discernable trend can be observed, the spread being very broad. In the case of undrained shear strengths high moisture contents can frequently exhibit high strengths. Similarly, low shear strengths may not uncommonly be associated with low moisture contents. Although the moisture condition value (MCV) is not a definitive primary parameter, it is frequently used to manage acceptability on site.

9.5.14 Although moisture content shear strengths do not exhibit a coherent relationship, the MDD/OMC relationship for the cohesive materials is quite marked on the limited results available to date with cohesive moisture contents for 95% compaction based on Standard Proctor consistently between 6% and 14%. Similarly the mcv/ mc relationship for the cohesive soils defines a reasonable relationship and mcv ranges between 4 to 14 would equate currently to the moisture contents for 95% compaction.

9.5.15 For the granular materials, excluding the fluvio glacial (FL_GT) for which it is considered the mcv test is not appropriate, the mcv /mc relationship although not as well marked as for the cohesive soils does provide a level of confidence that mcv values would be between 4 and 13.

9.5.16 For both materials where heavier compaction is utilised, the lower mcv figure would be revised upwards to possibly a minimum of 6.

9.5.17 Further work is required to better develop the moisture content/mcv relationship in association with MDD/OMC to establish limits equating to 95% compaction.

9.5.18 No presence of Class U1B materials has been indicated. Although not confirmed, coal tar binder, a Class U2 material, is considered likely in the lower levels of the existing A66 carriageway. The existing carriageway will be realigned to form the new eastbound carriageway and tar bound material will be required to be identified and removed from site. It is however understood that ongoing research for low temperature remediation of tar based binders may enable future re-use of such materials rather than automatically being removed.

Cuttings

9.5.19 Cuttings in general will be formed with 1V to 3H sideslopes. Top of crest drainage is to be provided particularly where existing topography slopes towards the cutting and where composite materials of granular and cohesive are exposed in the face, counterfort drainage should be provided to ensure seepages from the granular materials are controlled even where quite thin granular exposures occur. Toe of batter drainage will be required in accordance with SHW Clause 500.

9.5.20 As outlined in section 9.5.2 most of the aignment is at grade or shallow cut (less than 1.5m depth) and construction will be focused on pavement SSM values.

Ch 23500 to Ch 24100

9.5.21 Cutting up to a maximum of 4.2m deep, through predominantly cohesive glacial till (GT_CO), although sandy cohesive till (GT_V) was encountered in TP PTS021. Undrained shear strengths indicate a firm to stiff consistency with values generally well in excess of 40kPa. Hand vane tests in TP PTS021 (GT_V material) appear low at 9kPa and 22kPa, but this is considered due to the sandy consistency.

9.5.22 Most of the excavated material is considered acceptable for re-use with the possible exception of the sandy cohesive material around chainage 24000 (GT_V),

9.5.23 SSM values from the single cycle plate tests indicate values well above 30MPa (51MPa to 69MPa), although in TP PTS021 lab CBR tests returned low results (equivalent SSM of 17MPa and 21MPa) at densities close to maximum.

9.5.24 Groundwater was not encountered although a small seepage was recorded in TP PTS020 at 2.1m depth.

Embankments

*Ch 22700 to Ch 23450 (Centerparcs Ju*nction)

9.5.25 Embankment to 8.4m in height carrying the mainline over Centerparcs Underpass. Embankments will also be formed to lead the slip roads north and south off the mainline to the Centerparcs Underpass.

9.5.26 Sub formation is indicated to be principally sandy cohesive glacial till (GT_V) with some interspersed lenses of granular material (GT_S) overlying weathered Penrith Sandstone at some 5.0m depth below existing ground level.

9.5.27 Undrained shear strengths for cohesive materials recorded a minimum of 50kPa from SPT N_{60} correlations, and for the granular material effective angles of friction varied from 30° to 42°. Where cohesive materials are encountered following topsoil strip, a starter layer to ensure drainage will be required.

SUDS Ponds

9.5.28 All of the SUDS ponds positions investigated returned indeterminate values of infiltration rate based upon the guidance give in the BRE Soakaway Design Digest 365, as they were unable to determine seepage from 75% effective depth to 25% effective depth.

9.5.29 The SUDS ponds therefore are not expected to drain, but will form attenuation ponds with outflows constructed to available watercourses.

9.6 Subgrade and Pavements

9.6.1 It is beyond the scope of this report to provide design CBR /SSM values for pavement construction, but a brief discussion on relationships developed over many years of UK road construction may not be out of place, particularly as many years of research with many results provides a better statistical validation of design values than the limited number available from any ground investigation.

9.6.2 Road Note 29 (third edition 1970) (26) provides correlations of equilibrium CBR with Plasticity Index. This is cited in TRL report LR1132 (41), IAN 73/06 (25) and referenced in CD225 (42). Work by Black and Lister (1979) (43) provides correlations with Consistency Index and develops equilibrium CBR values as a function of both subgrade water table and construction practice and weather conditions. Notably they proposed a Suction Index methodology to determine equilibrium water content below the pavement.

9.6.3 Figure 9-8 below indicates the statistical distribution and probability of all test results for SSM combined from lab CBR, Plate tests and LWD on the cohesive soils (GT_CO, GT_V and MG_CO). Plasticity Index values for the cohesive materials range from 4 to 28 with a mean of 15.3 and standard deviation of 3.9 which means 68% of PI values are between 11 and 19.

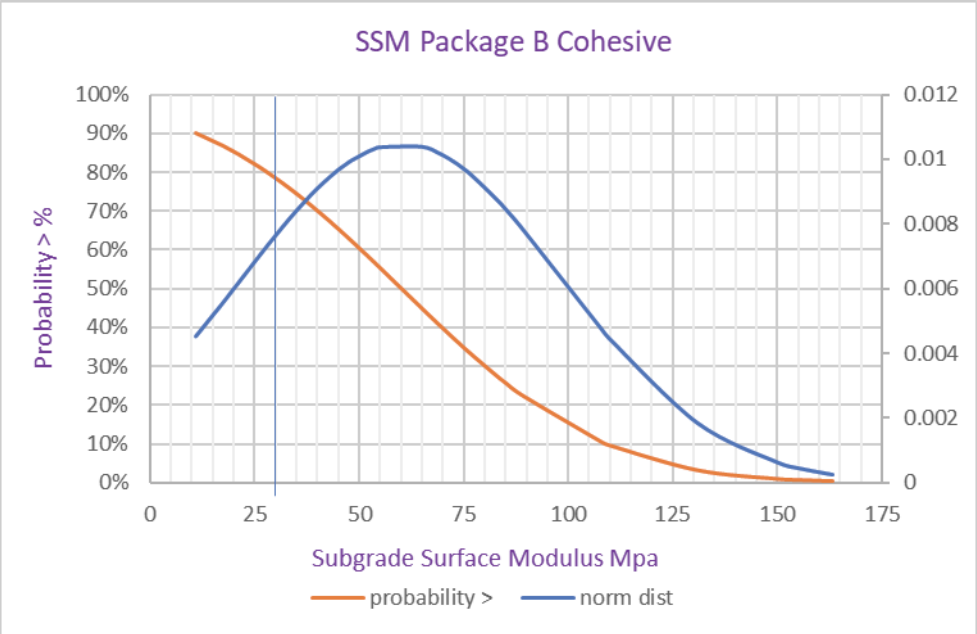

Figure 9-8: Overall statistical distribution of SSM values M6J40 to Temple Sowerby

9.6.4 From RN 29 and LR1132 for a well controlled construction site and average weather conditions an equilibrium CBR of 6% to 7% (SSM 55MPa to 61MPa) may be reasonably expected. This equates reasonably to the average of the results obtained (Figure 9-8). The probability that only some 55% of the material will fall within or above this range may indicate either risk of numerous soft areas or a lack of data sets to fully assess the likely pavement design performance.

9.6.5 Further work will be undertaken during Phase 2 of the Ground Investigation during 2022.

9.6.6 Additional work is planned to incorporate studies into soil improvement and stabilisation. If satisfactory this will enable reduced excavation from road box and consequent reduction in imported quarried material to form capping.

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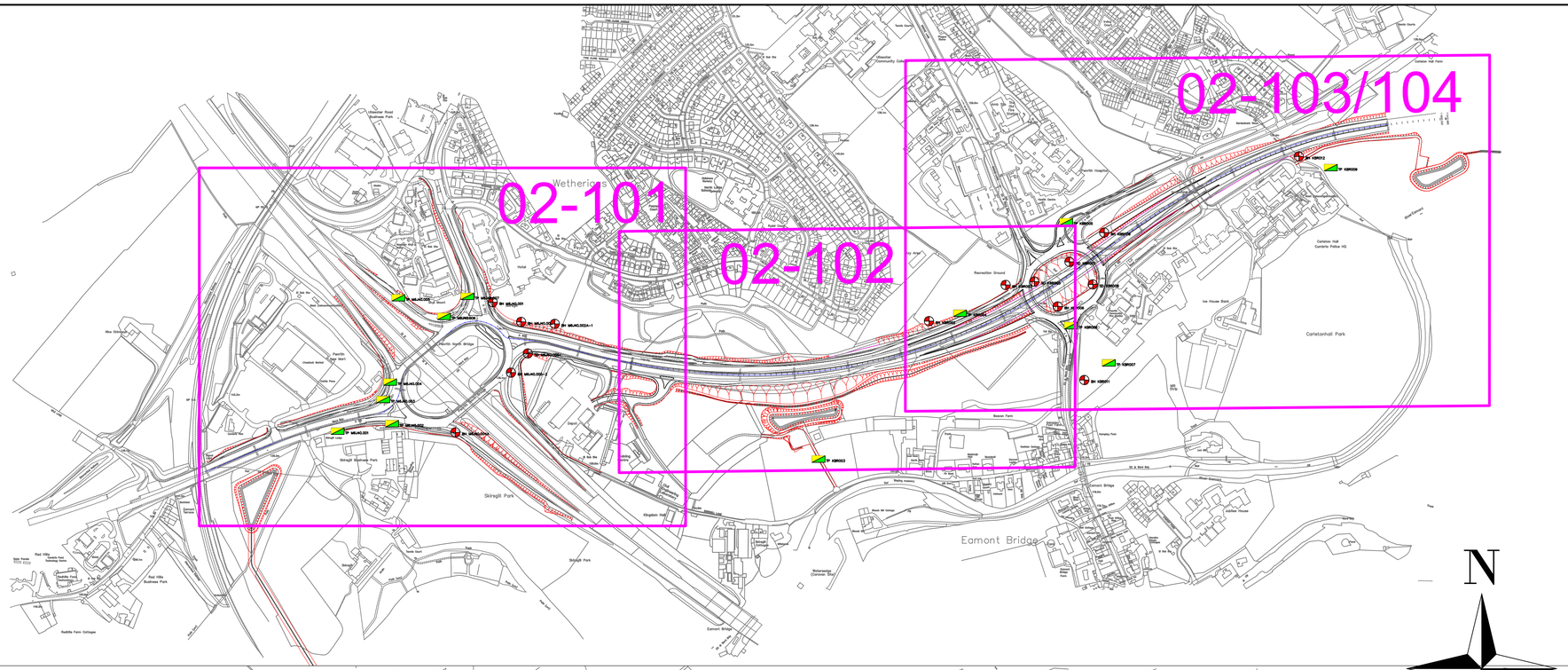
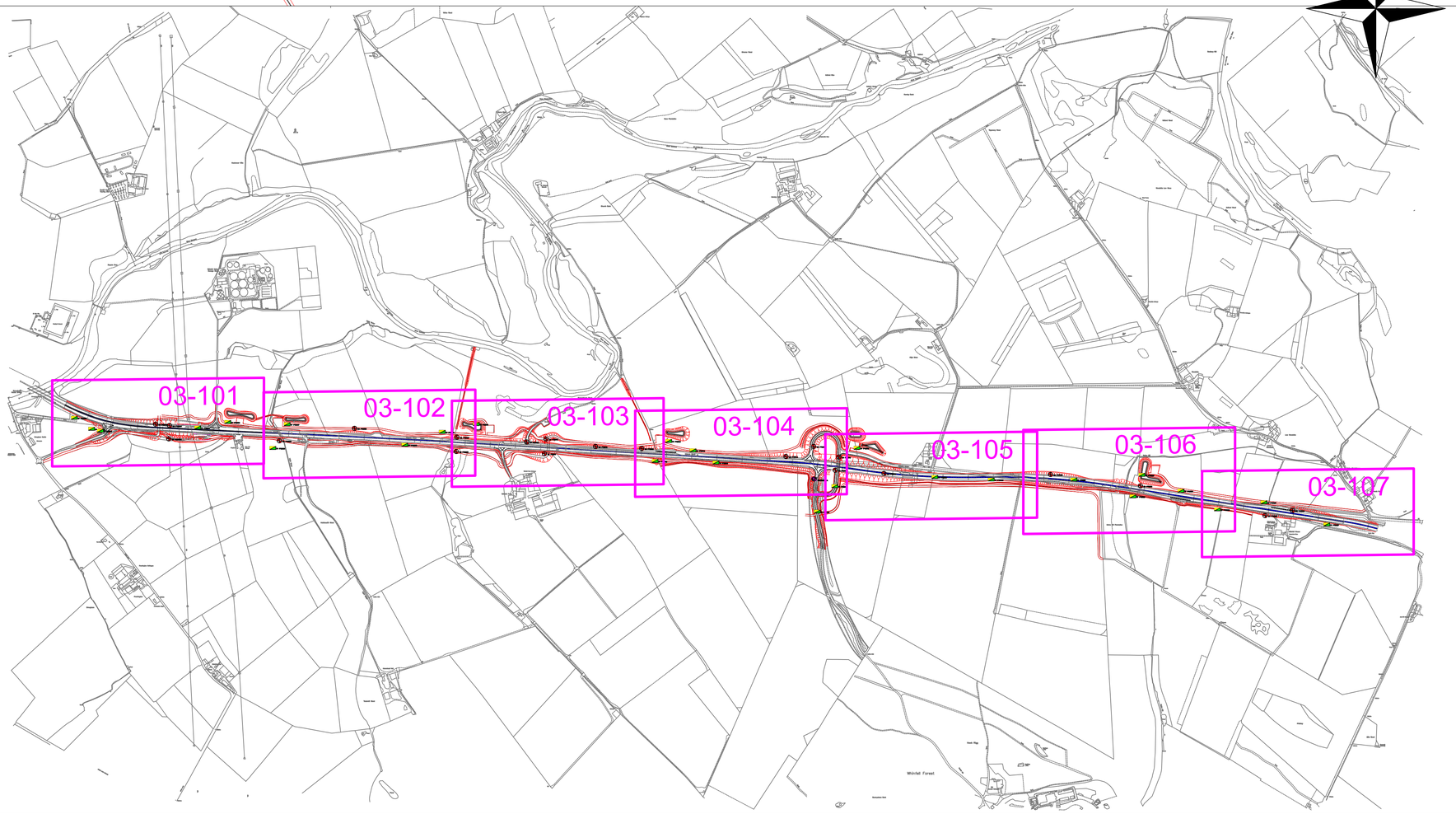
A Drawings





Key to all Geotechnical Drawings

- HDTP — Hand Pit
- WS — Window Sample
- TP — Trial Pits
- BH — Boreholes
- BH — Historic Boreholes
- Water level
- Water strike

02-101 — Scheme no–drawing no

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national highways

Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
M6 J40 & KBR to Temple Sowerby
Key to GIR Drawings

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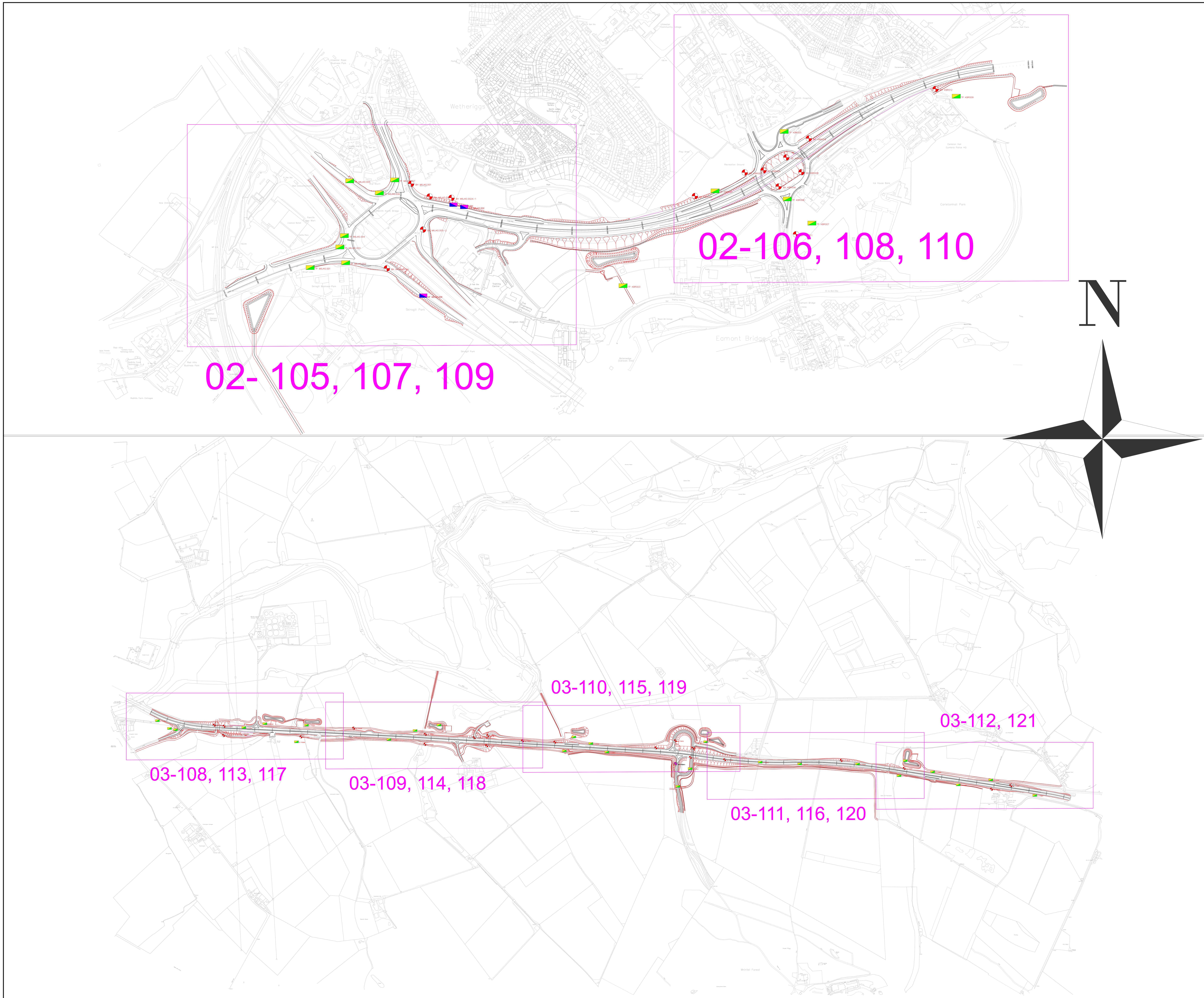

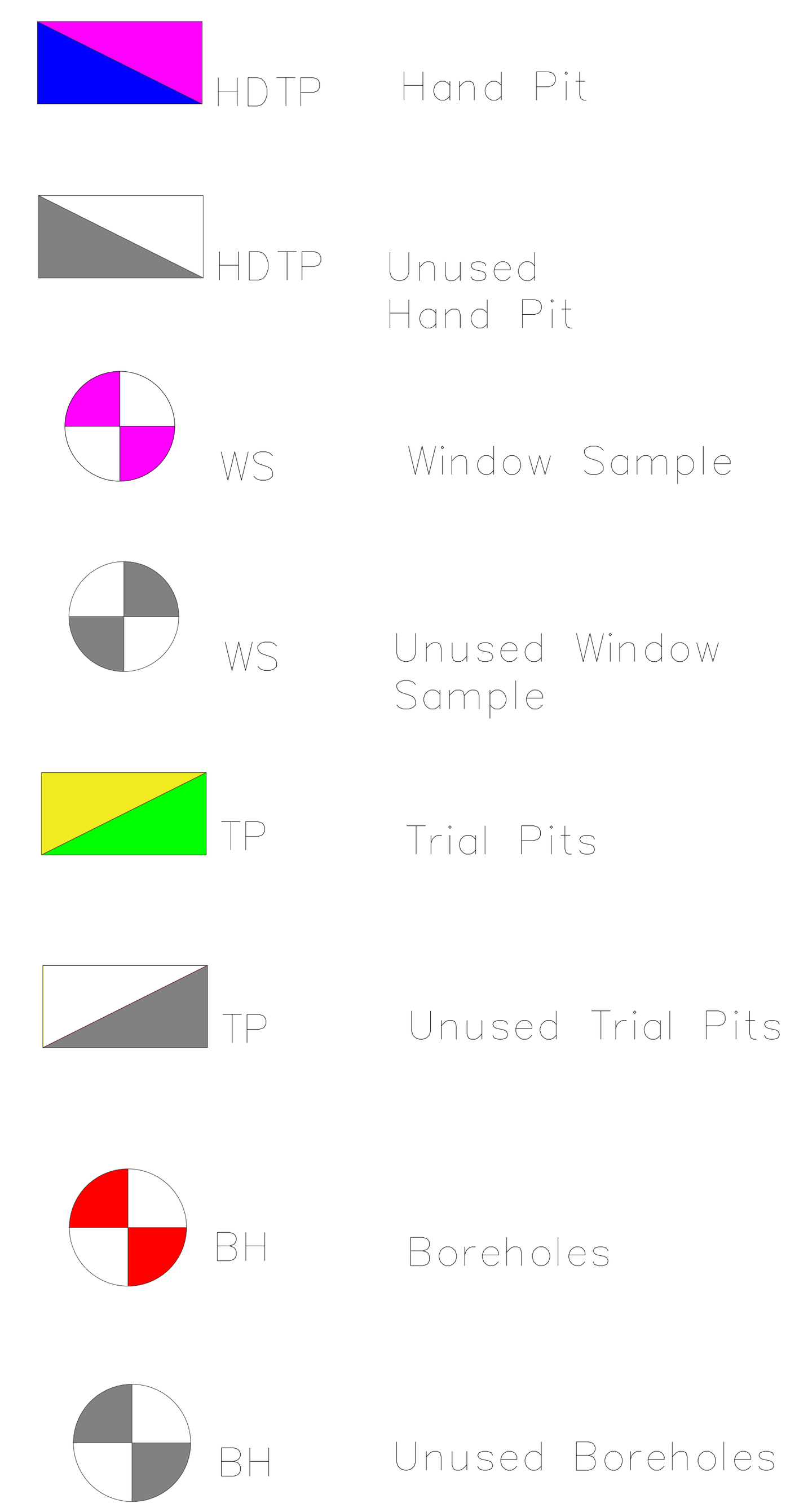

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Drawing Title
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Geo-Env Drawing Key

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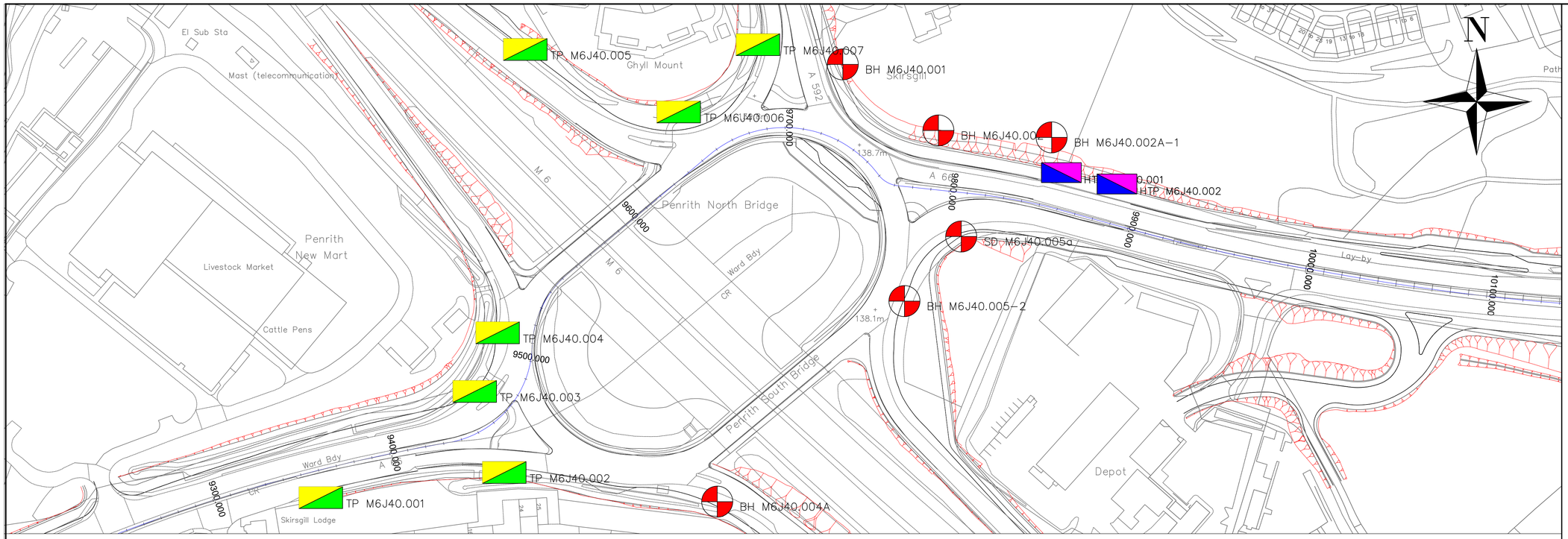

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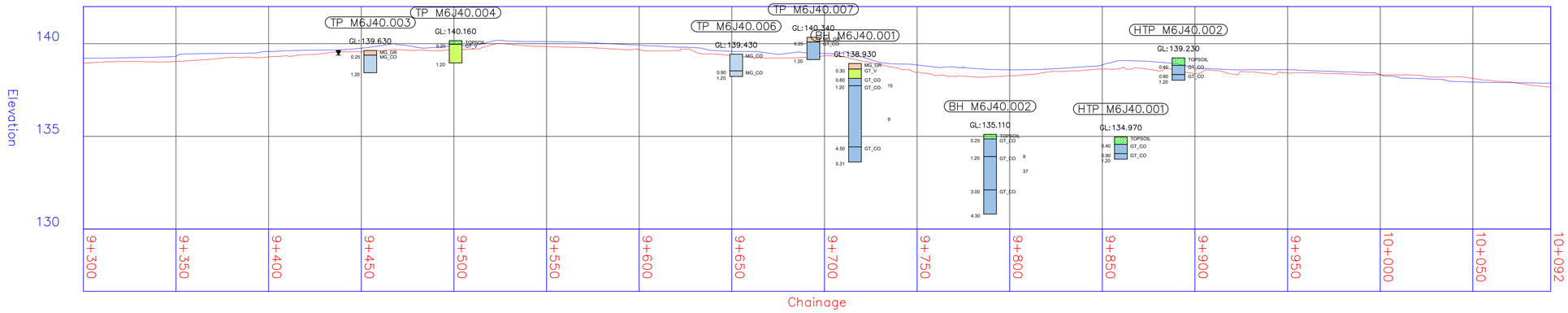

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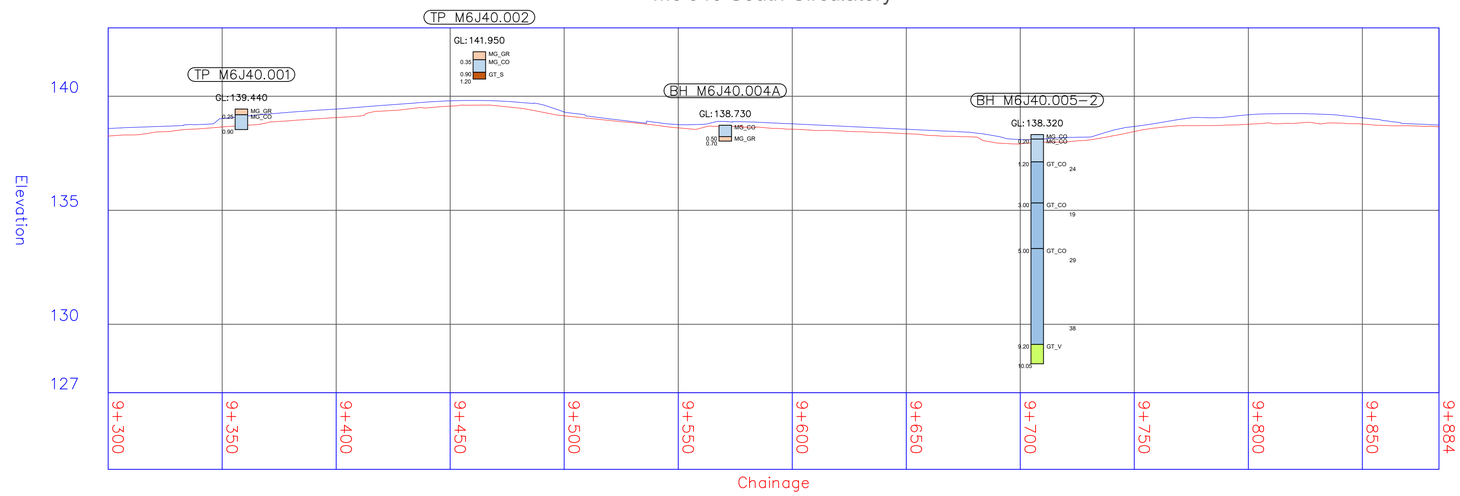

Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SSt formation
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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Project Name
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Drawing Title
Package B
M6 J40 - Kemplay Bank Roundabout
GIR Drawings
Sheet 1 of 4

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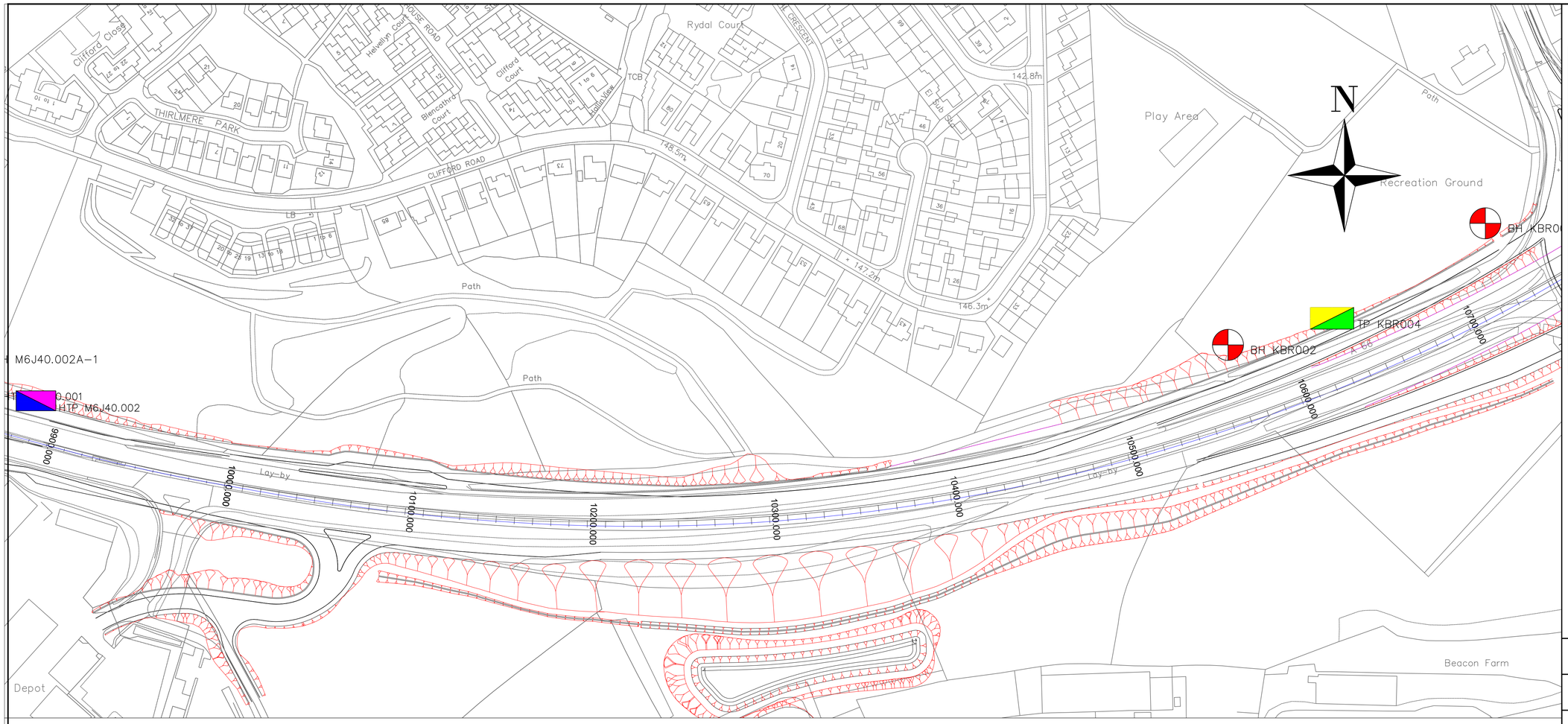

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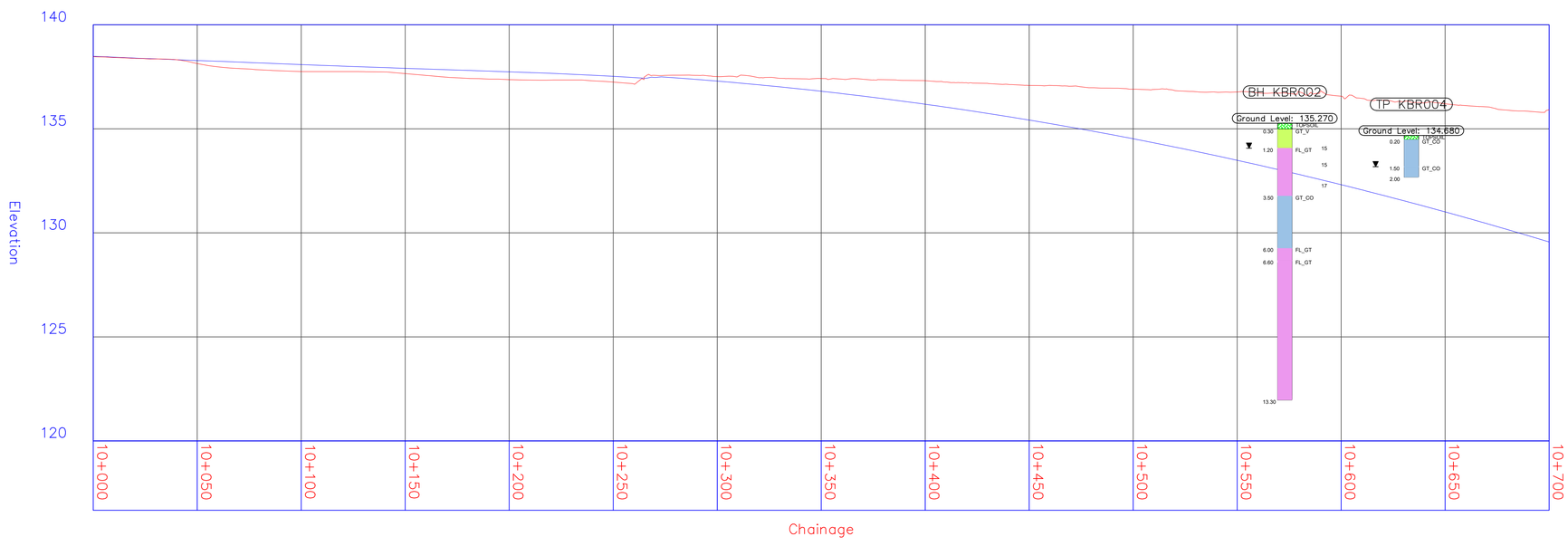

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GIR Drawings
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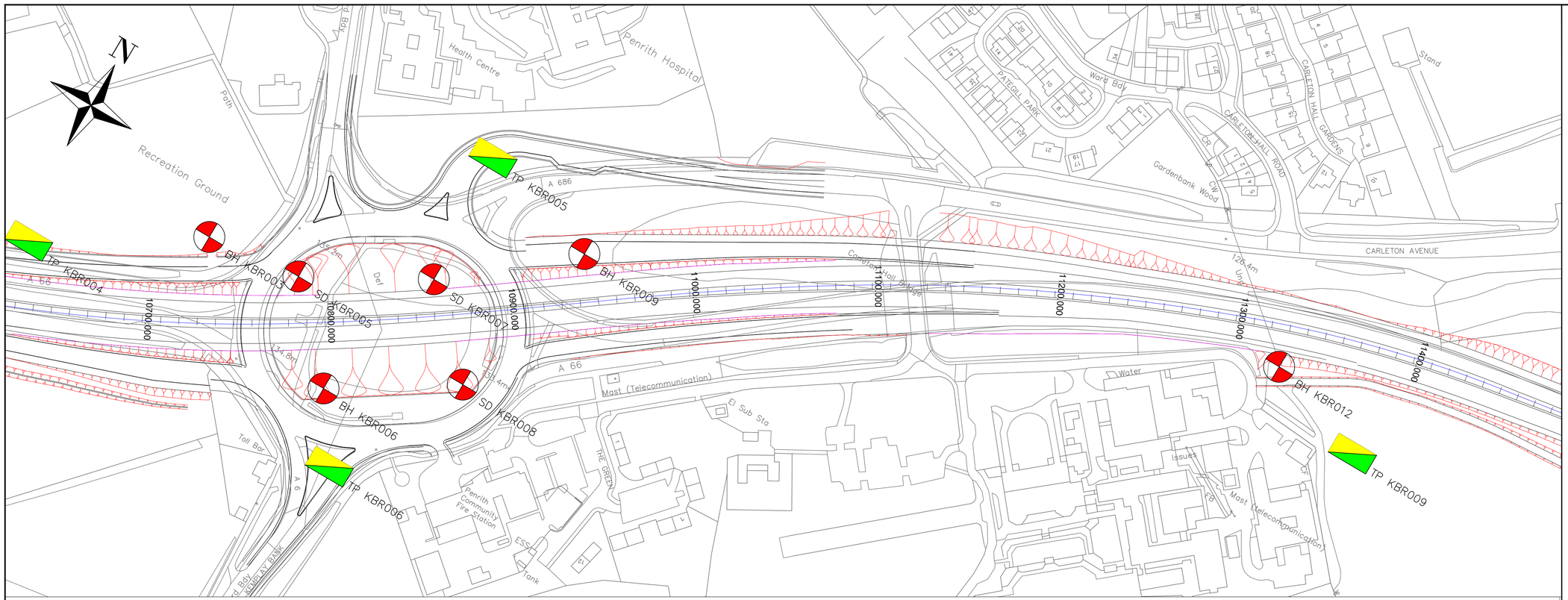

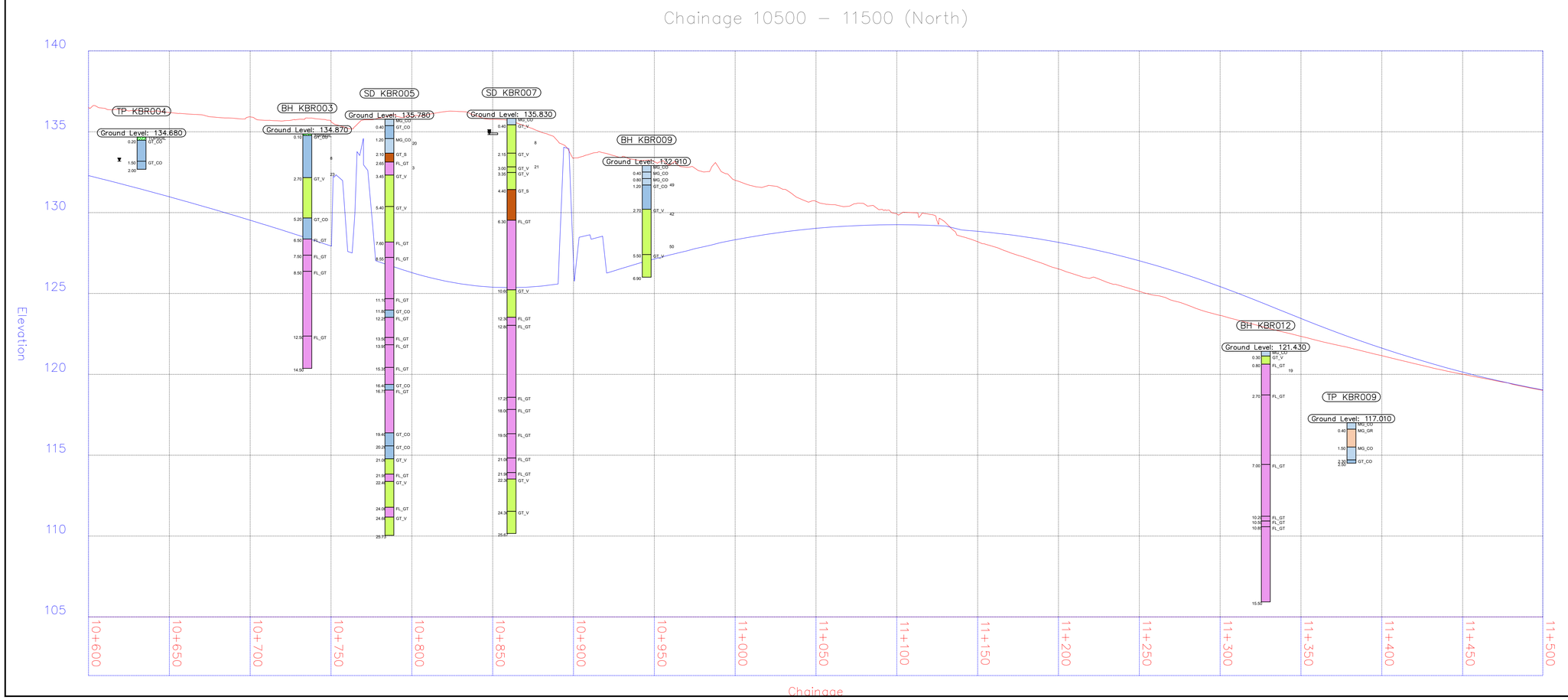

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Sheet 3 of 4

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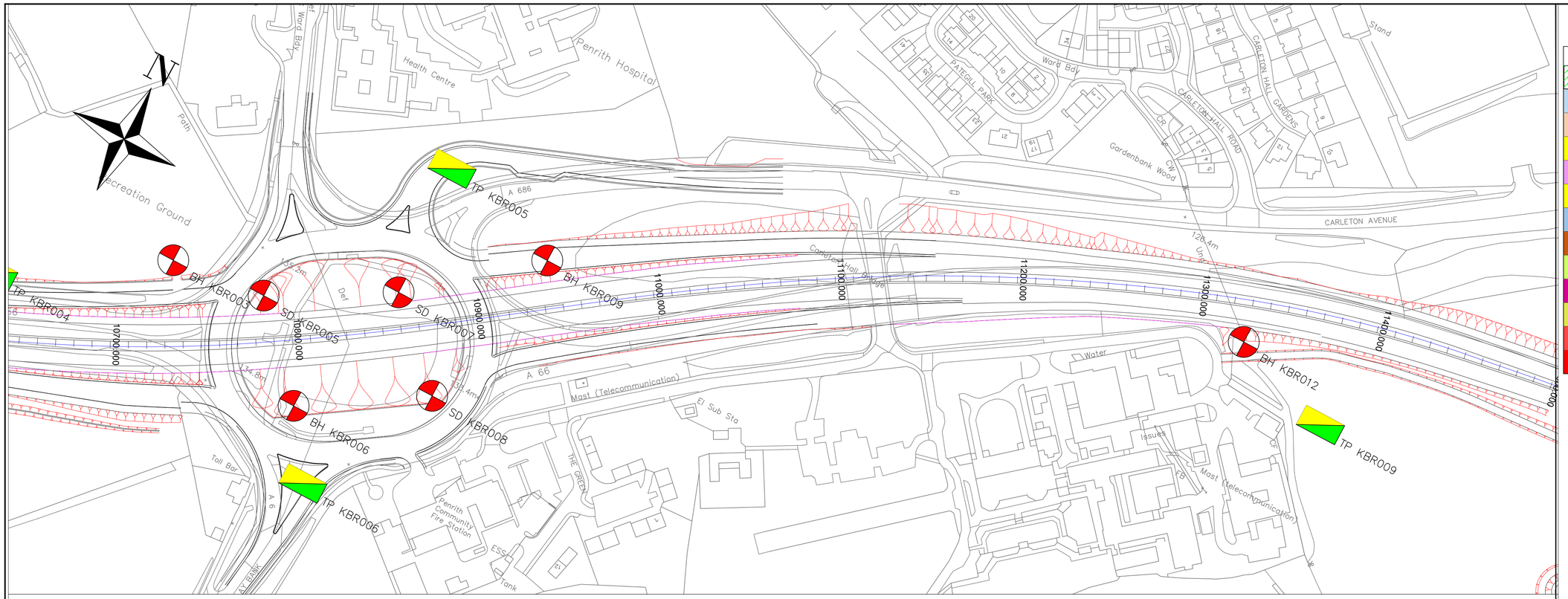

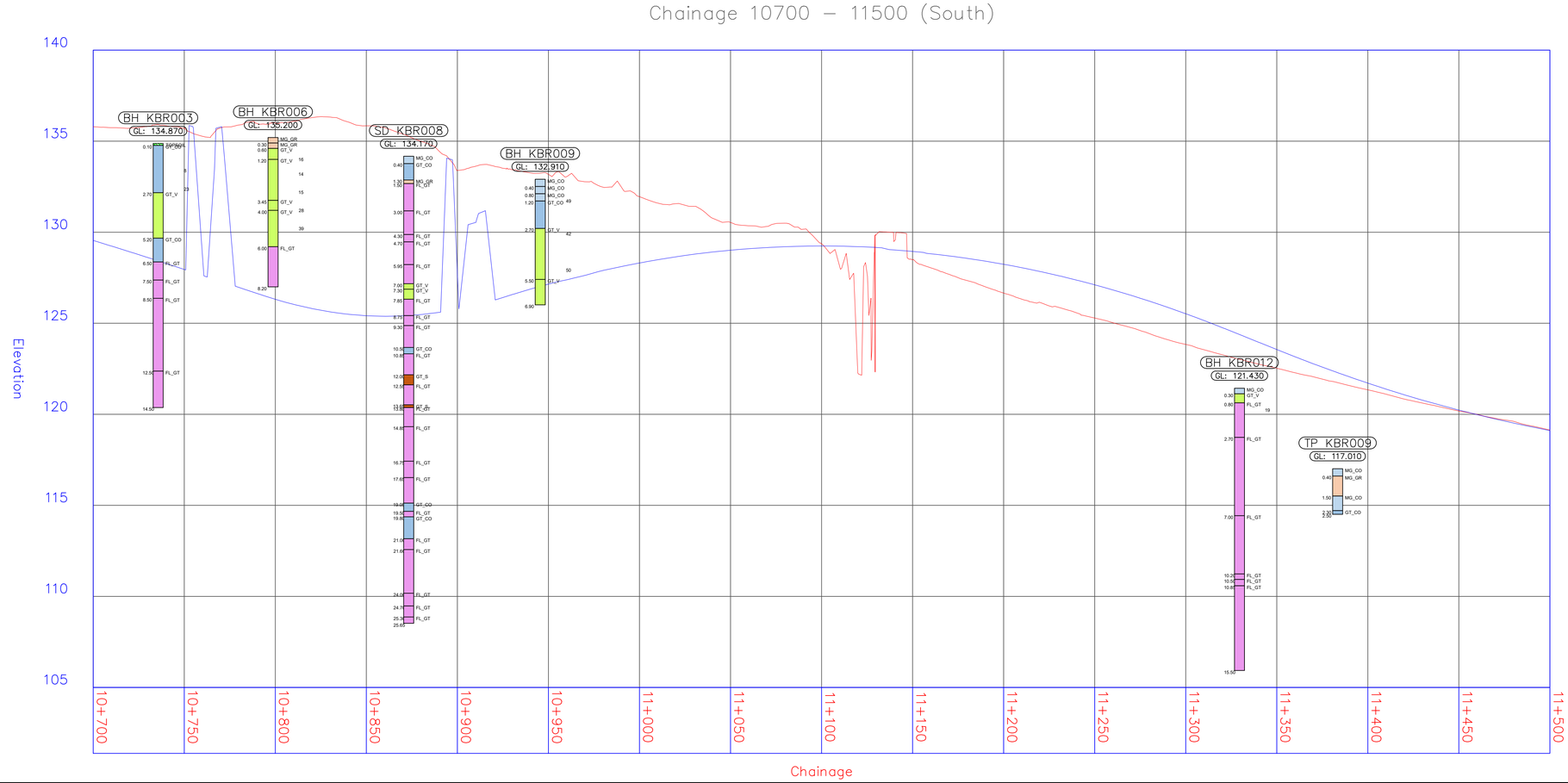

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Drawing Title
Package B
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GIR Drawings
Sheet 4 of 4

Project Ref. No.	Stage	Scale : 1:1250 @ A1
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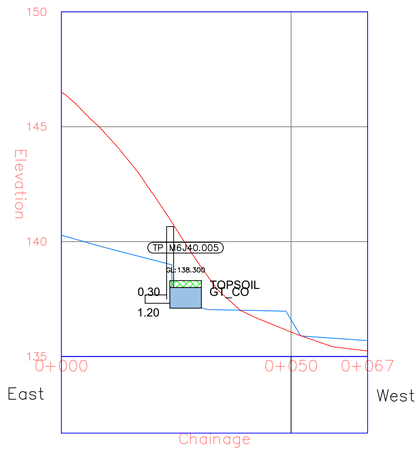

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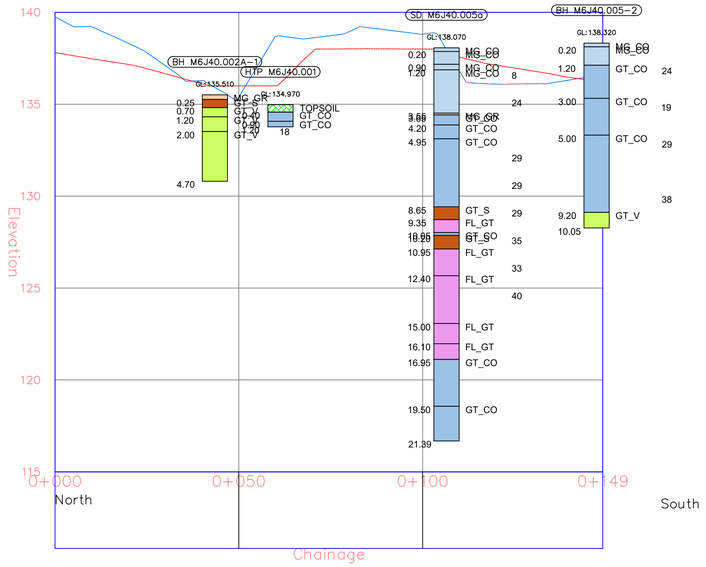
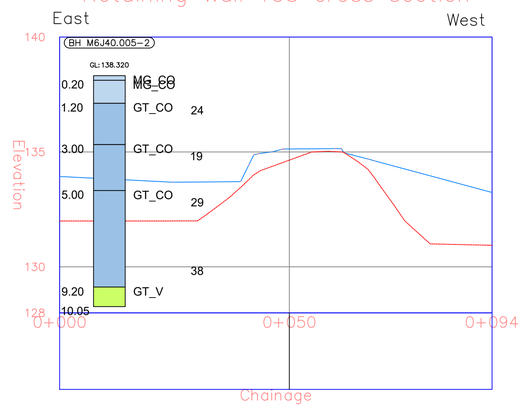
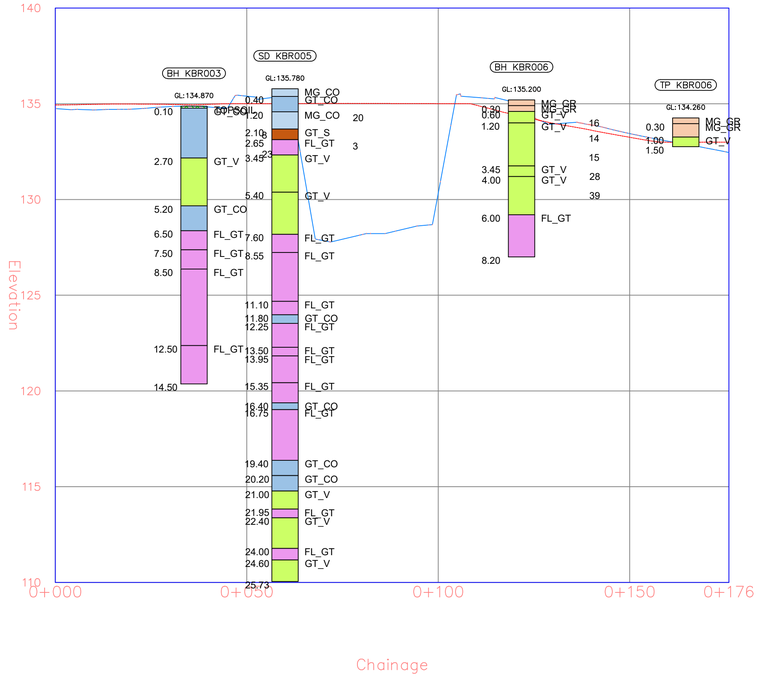


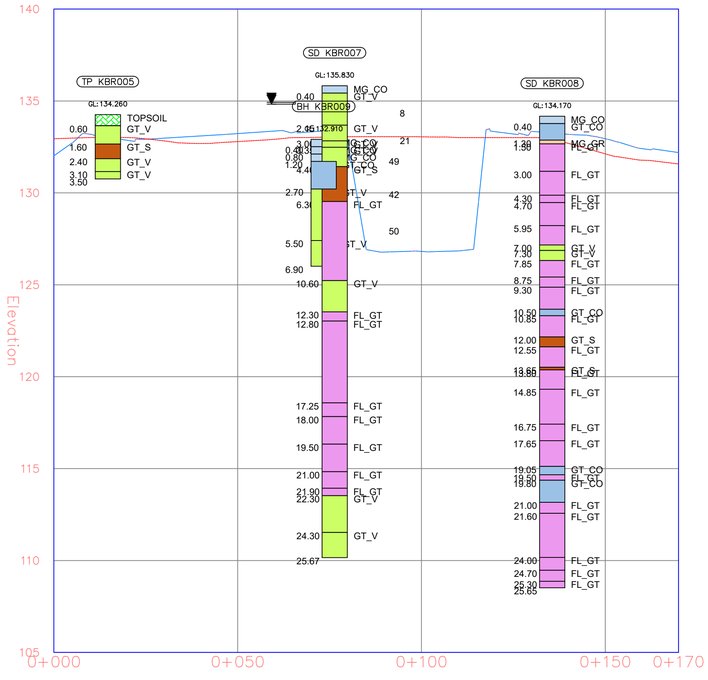
Retaining Wall 103 cross section



KBR West Bridge cross section



KBR East Bridge cross section



RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

1. Please enter project specific hazards here.

NOTES

1. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here.
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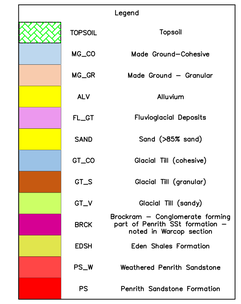

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P01	MHAR	MHAR	PCOF	PCOF	---	
	17/02/22	17/02/22	18/02/22	18/02/22	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

Designer
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A66 NTP Integrated Project Team

Client
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highways england

Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
M6 J40 & Kemplay Bank
Structures Geotechnical Appraisal
Sheet 1 of 2

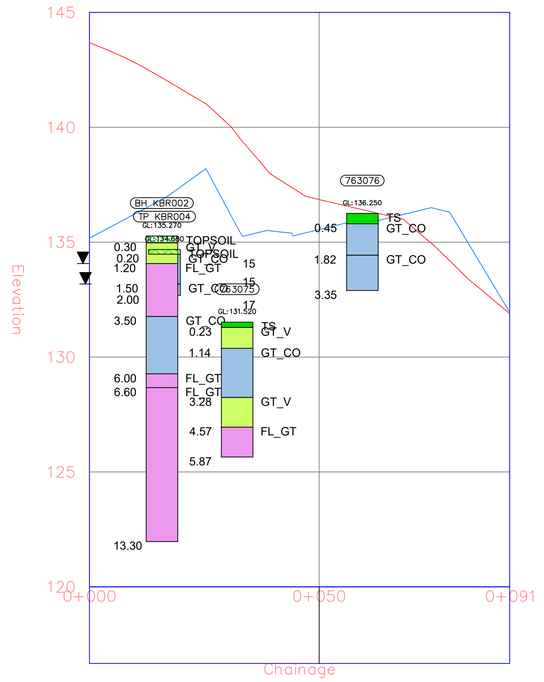
Project Ref. No.	Stage	Scale : N/A @ A1
---	PCF3	Dimensions : M

Drawing Number

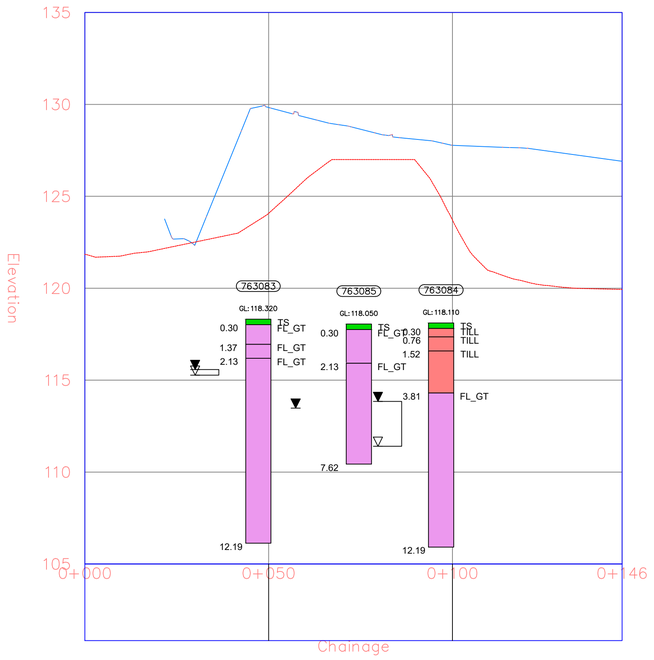
Project	Originator	Volume			
HE565627 -	AMY -	HGT -			
S01		-DR-	CE-	000301	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01

Retaining Wall 201 cross section



Carleton Hall Underpass cross section



RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

1. Please enter project specific hazards here.

NOTES

1. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here. Please type your text here.
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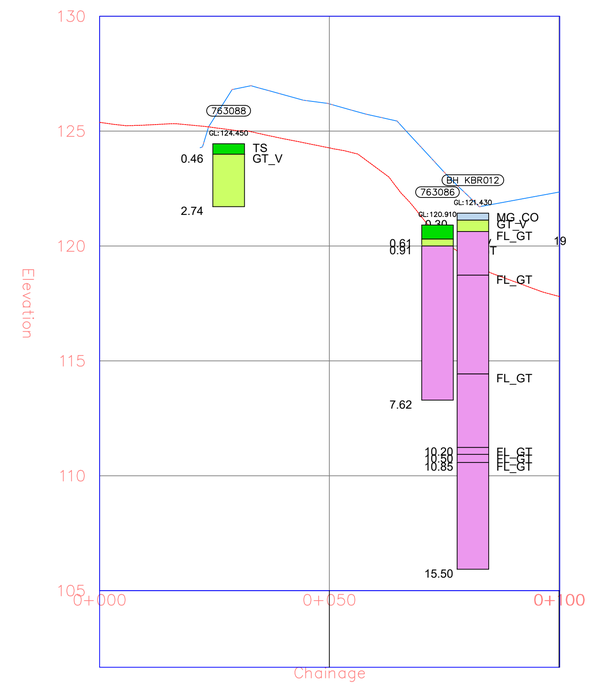
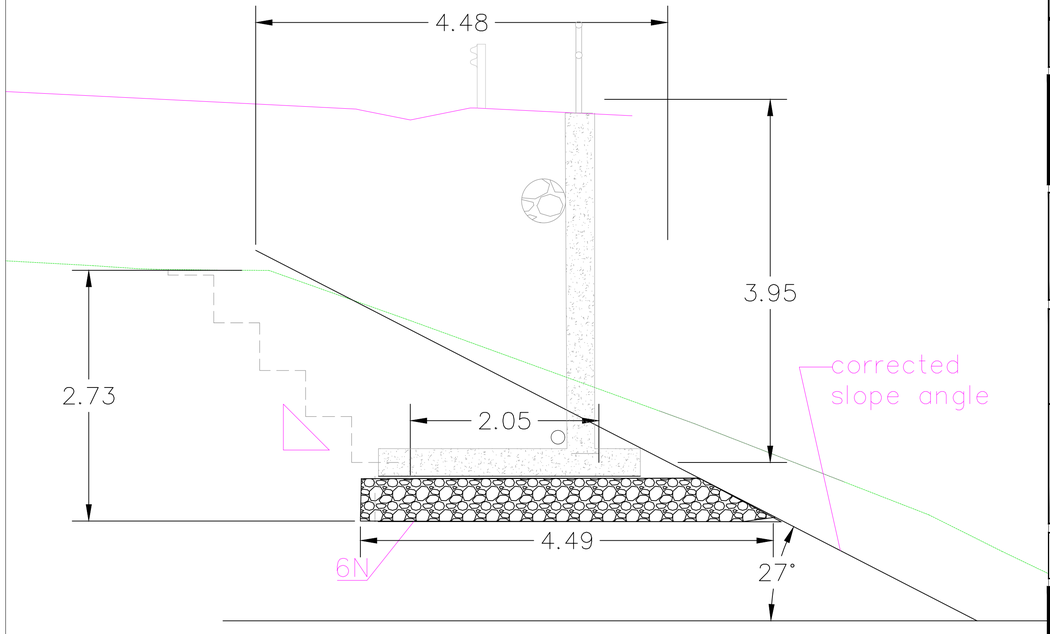
3. Please type your text here. Please type your text here. Please type your text here. Please type your text here.

Legend	
TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SSt formation – noted in Warcop section
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

Retaining Wall 202 cross section



Natural scale cross section of Retaining Wall 202



Revision					
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P01	MHAR	MHAR	PCOF	PCOF	---
	17/02/22	17/02/22	18/02/22	18/02/22	---
Revision details	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

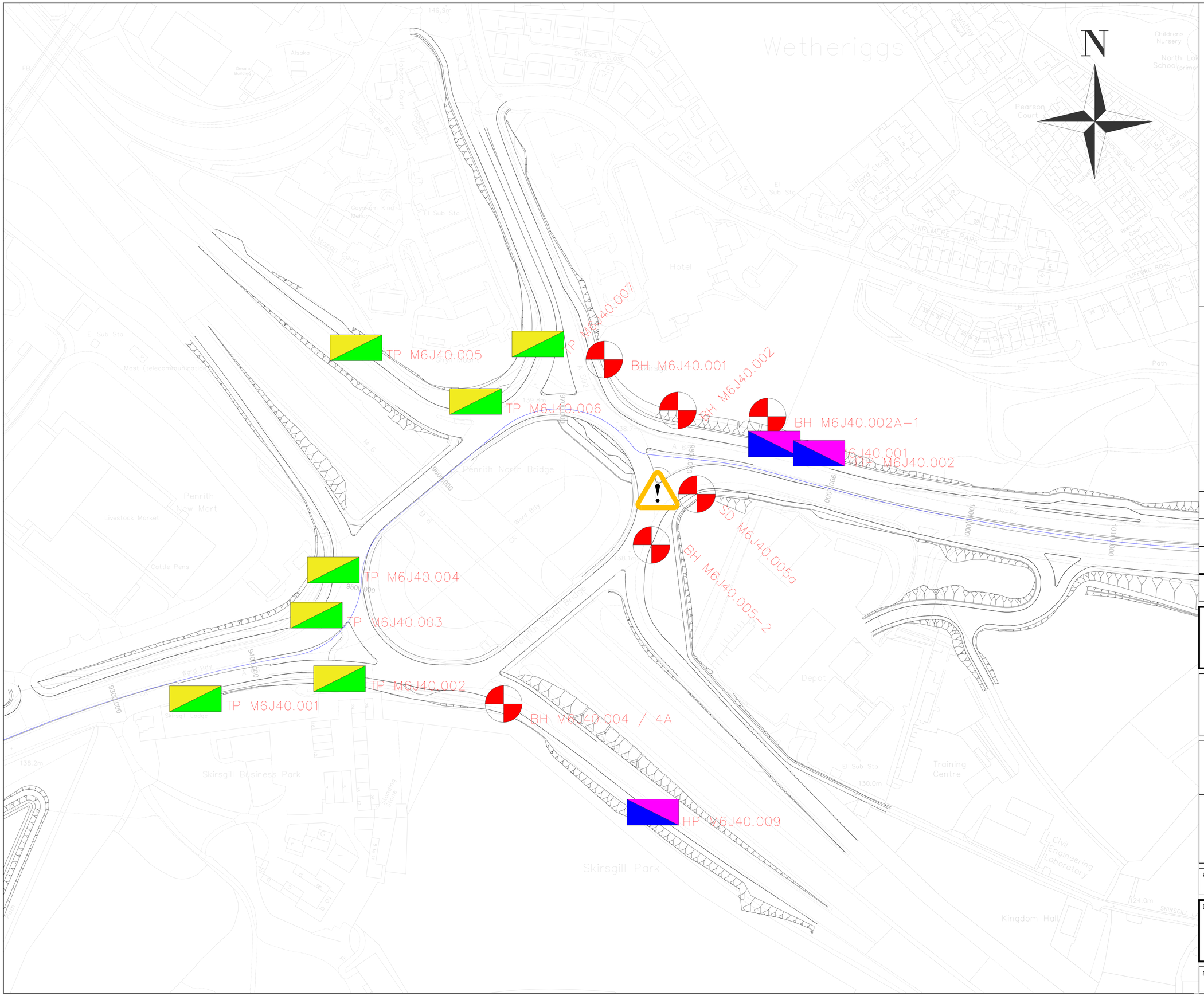
Drawing Title
Package B
M6 J40 & Kemplay Bank
Structures Geotechnical Appraisal
Sheet 2 of 2

Project Ref. No.	Stage	Scale : N/A @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S01		-DR-CE-	000302	
Location		Type | Role |	Number	

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



Geo-Environmental Hazards

SD M6J40.005a

- *3.55mbgl - TPH Exceedances & Hazardous Classification*

HDTP	Hand Pit
WS	Window Sample
TP	Trial Pits
BH	Boreholes

P01	MHAR 15/12/21	MHAR 15/12/21	JMOR 15/12/21	GMCG 10/02/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

Designer
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Project Name
A66 Northern Trans-Pennine

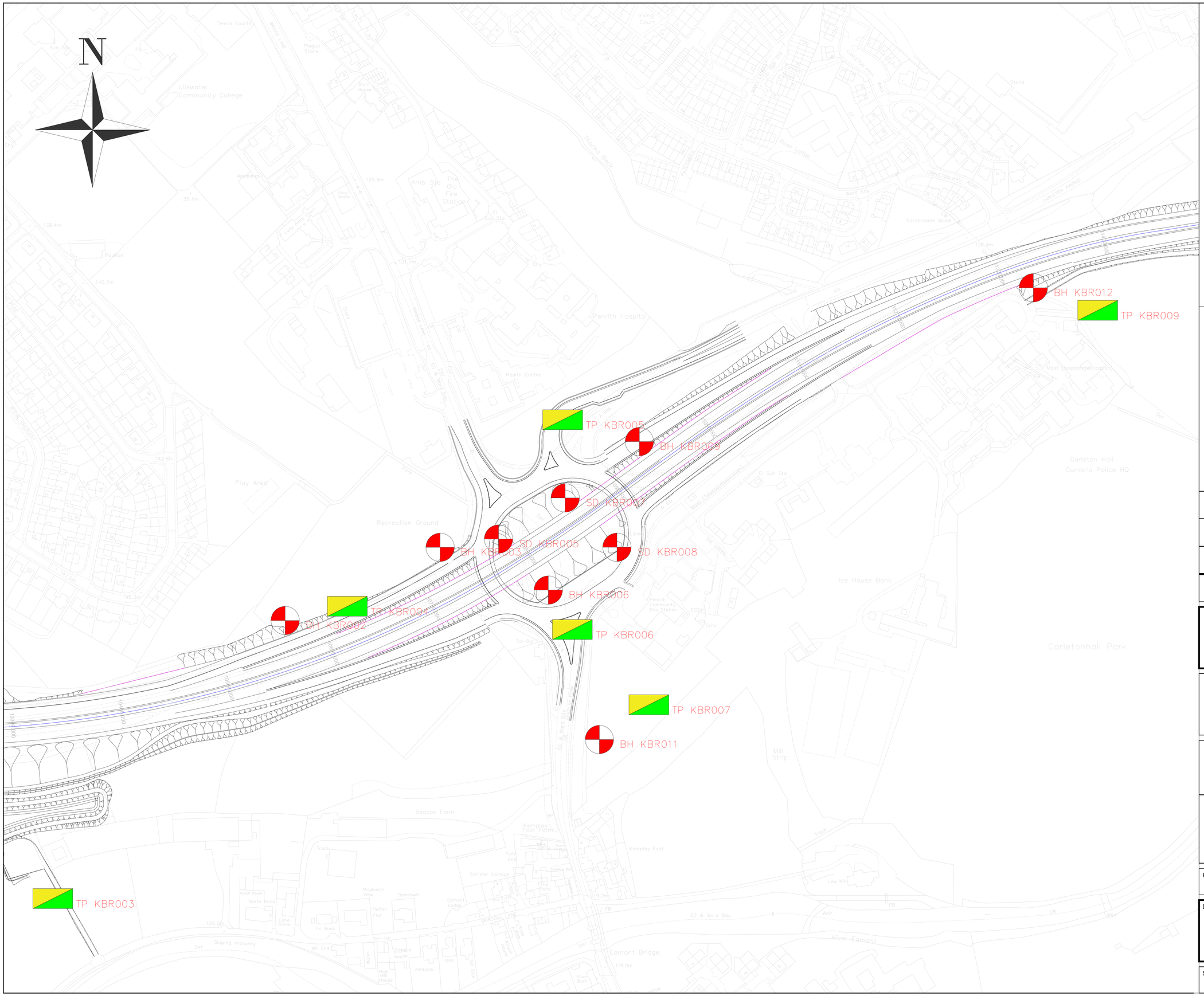
Drawing Title
Package B
M6 J40 - Kemplay Bank Roundabout
Geo-Environmental GIR Drawings
Soils Sheet 1 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S02		-DR-	CE-	000109
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



Geo-Environmental Hazards

- *None Noted*

HDTP	Hand Pit
WS	Window Sample
TP	Trial Pits
BH	Boreholes

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P01		MHAR	MHAR	JMOR	GMCG	---
		15/12/21	15/12/21	15/12/21	10/02/22	---
Revision	Revision details	Created	Checked	Reviewed	Approved	Authorised
		dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

Designer
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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
M6 J40 - Kemplay Bank Roundabout
Geo-Environmental GIR Drawings
Soils Sheet 2 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
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Location		Type	Role	Number

Suitability	Suitability Description	Revision
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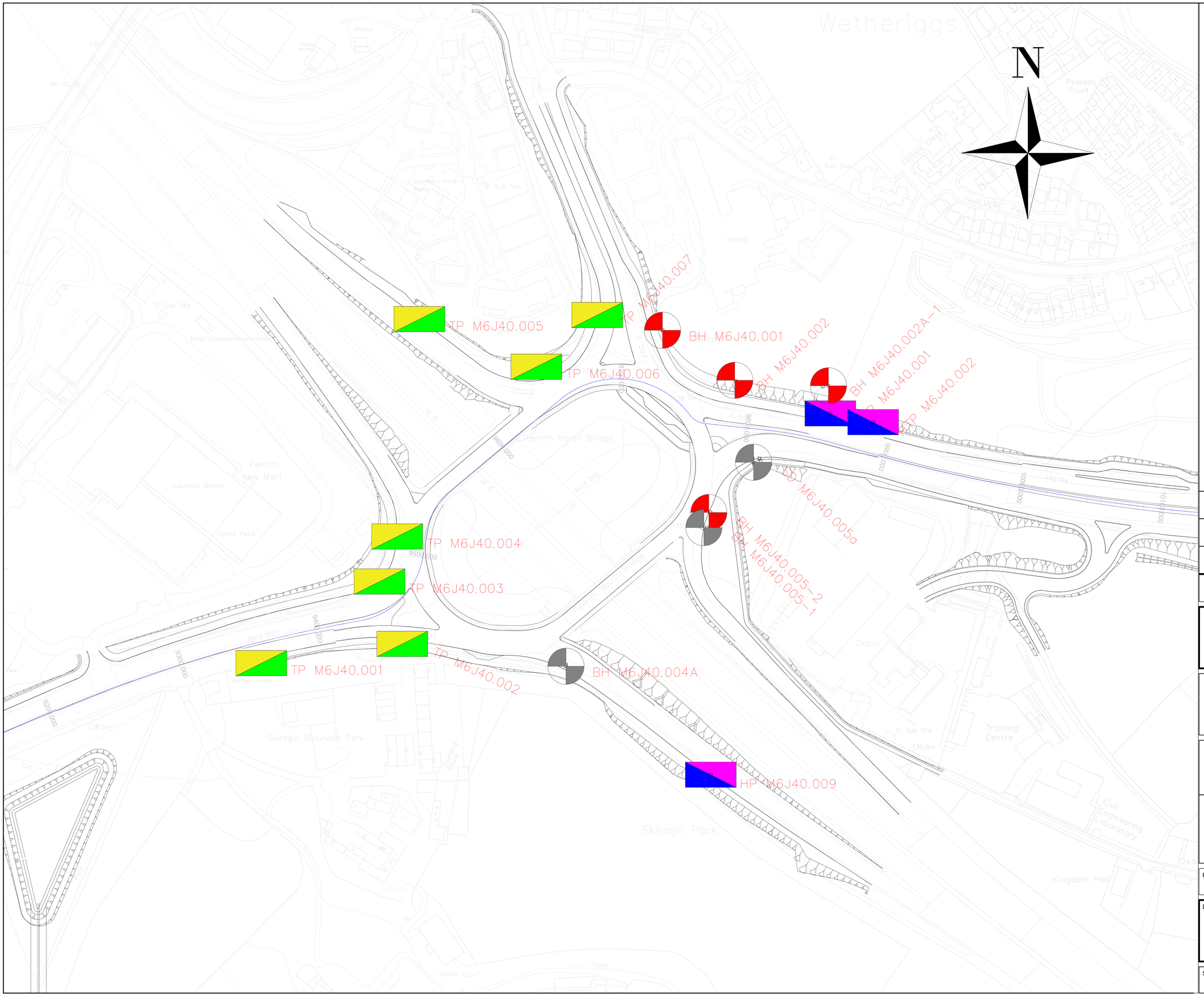

HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
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P01	MHAR	MHAR	JMOR	GMCG	---
	15/12/21	15/12/21	15/12/21	10/02/22	---

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
M6 J40 - Kemplay Bank Roundabout
Geo-Environmental GIR Drawings
Leachate Sheet 1 of 7

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
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Location	Type	Role	Number	

Suitability	Suitability Description	Revision
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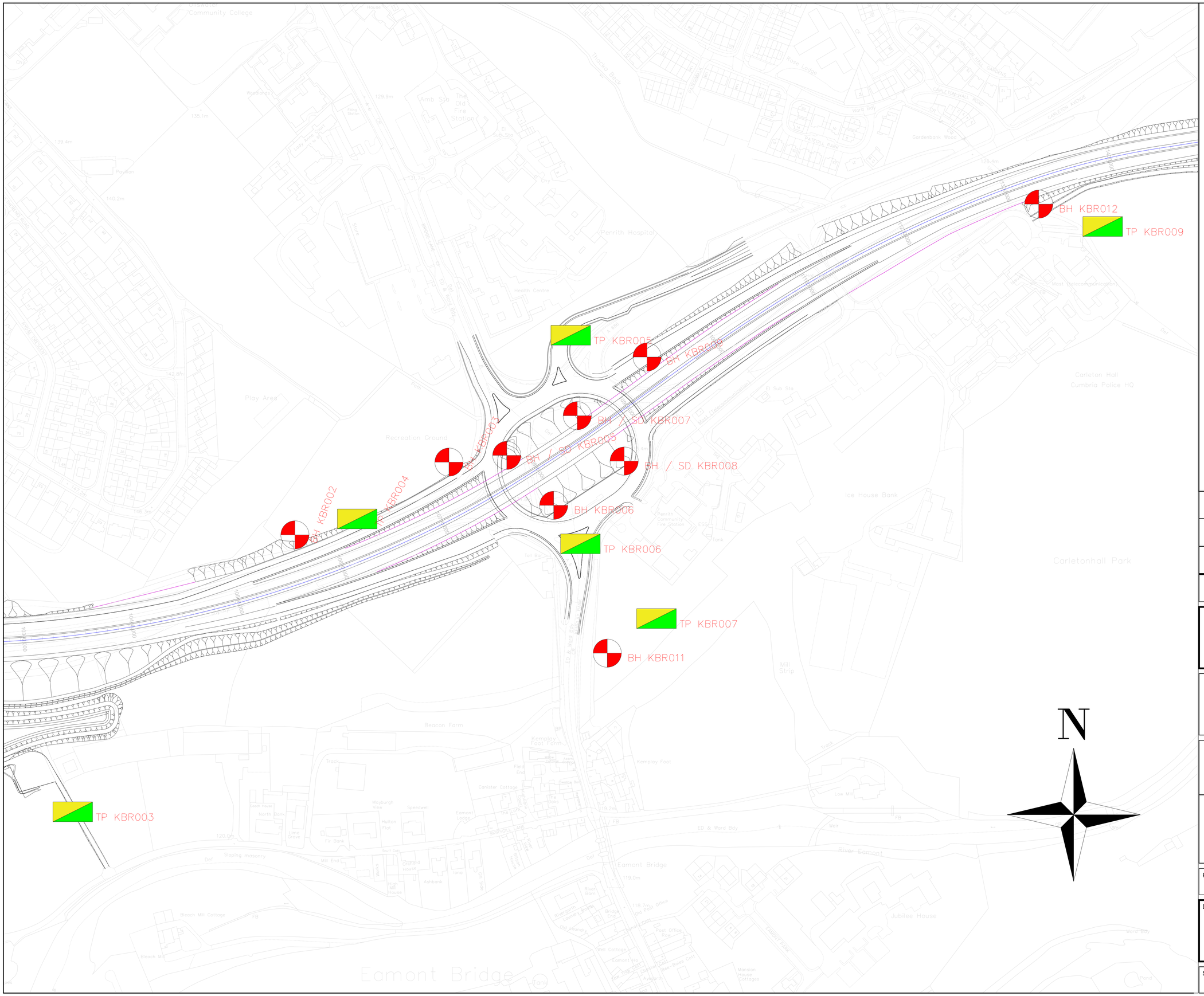

HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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P01	MHAR	MHAR	JMOR	GMCG	---	
	04/01/22	04/01/22	11/01/22	10/02/22	---	
P02	MHAR	MHAR	JMOR	GMCG	---	
	11/02/22	11/02/22	11/02/22	11/02/22	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
M6 J40 - Kemplay Bank Roundabout
Geo-Environmental GIR Drawings
Leachate Sheet 2 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
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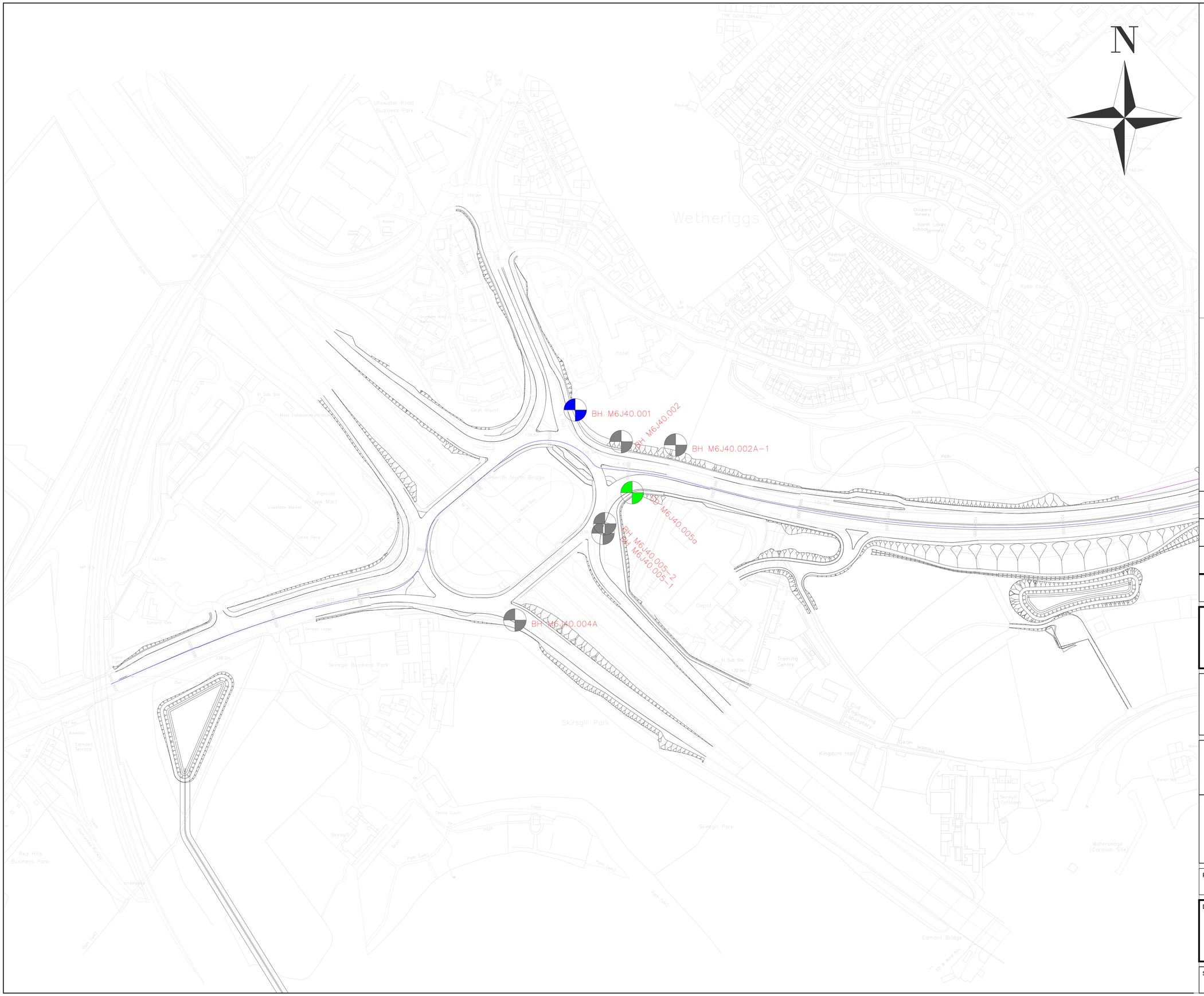

BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

Revision					
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	MHAR	MHAR	JMOR	GMCG	---
	12/01/22	12/01/22	10/02/22	10/02/22	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
M6 J40 - Kemplay Bank Roundabout
Geo-Environmental GIR Drawings
Groundwater Sampling Sheet 1 of 6

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
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Location		Type	Role	Number

Suitability	Suitability Description	Revision
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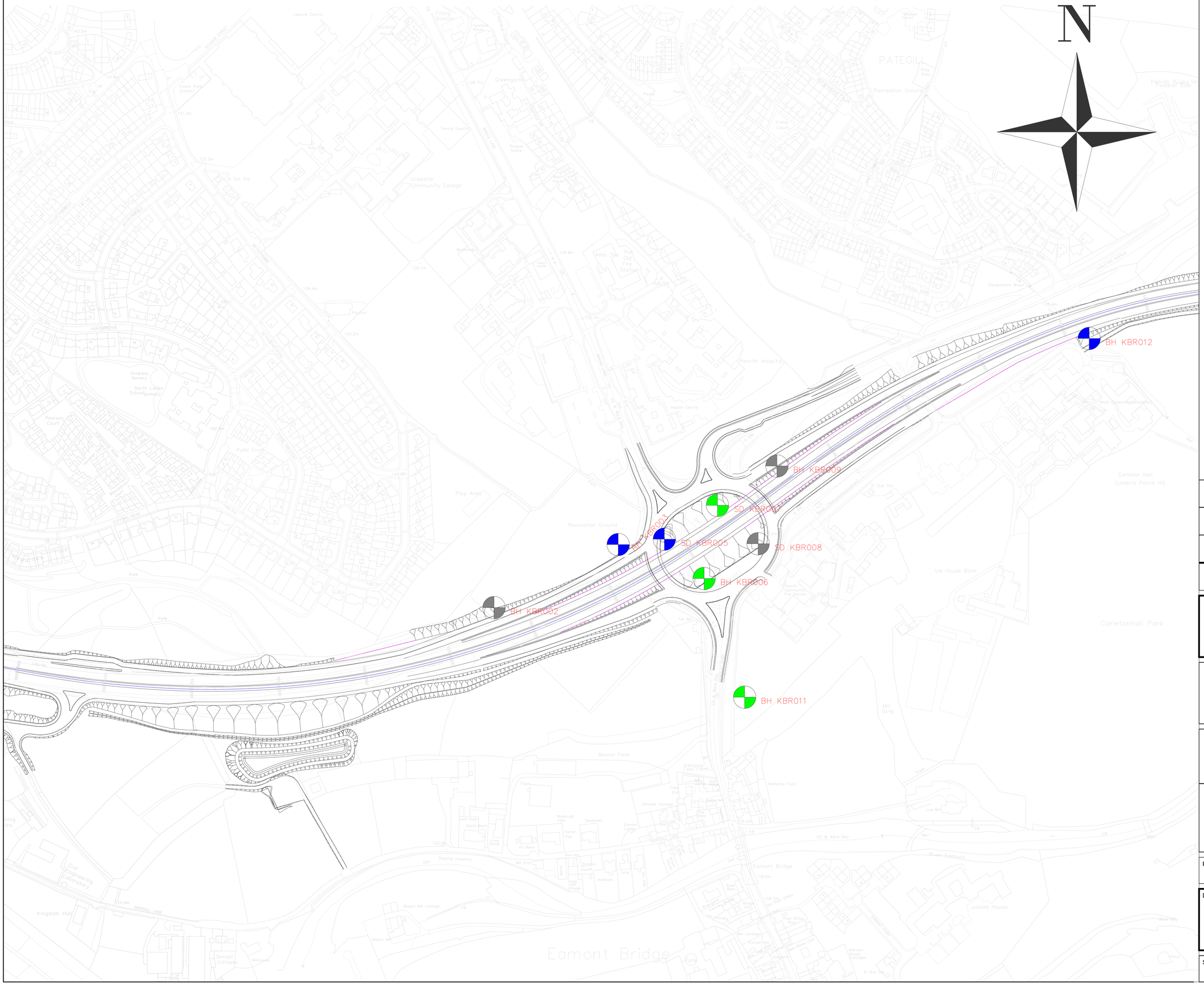

BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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P01	MHAR	MHAR	JMOR	GMCG	---
	12/01/22	12/01/22	10/02/22	10/02/22	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

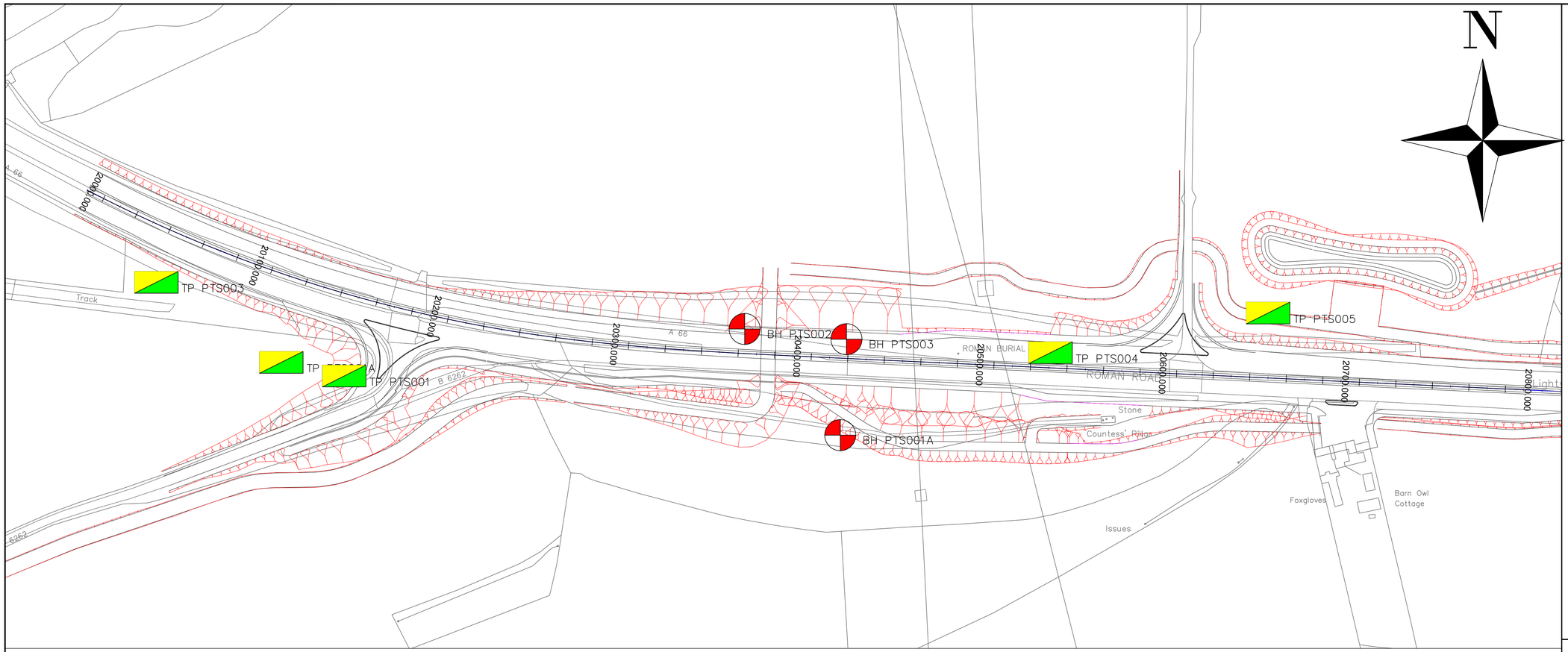
Drawing Title
Package B
M6 J40 - Kemplay Bank Roundabout
Geo-Environmental GIR Drawings
Groundwater Sampling Sheet 2 of 6

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S02 -DR-CE- 000108
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

A.2 Penrith to Temple Sowerby



Legend

	TOPSOIL	Topsoil
	MG_CO	Made Ground–Cohesive
	MG_GR	Made Ground – Granular
	ALV	Alluvium
	FL_GT	Fluvioglacial Deposits
	SAND	Sand (>85% sand)
	GT_CO	Glacial Till (cohesive)
	GT_S	Glacial Till (granular)
	GT_V	Glacial Till (sandy)
	BRCK	Brockram – Conglomerate forming part of Penrith SST formation
	EDSH	Eden Shales Formation
	PS_W	Weathered Penrith Sandstone
	PS	Penrith Sandstone Formation

HDTP Hand Pit

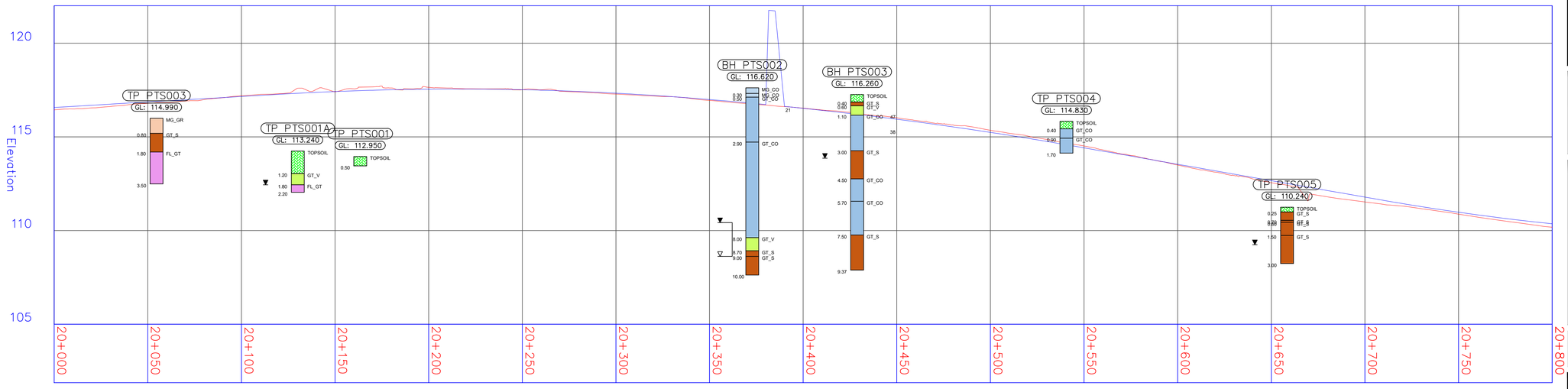
WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

Chainage 20000 – 20800



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	11/02/22	11/02/22	18/02/22	18/02/22	---	
Revision	Revision details					
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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
GIR Drawings
Sheet 1 of 7

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627	- AMEY -	HGT	-	
S03		-DR-CE-	000101	
Location		Type | Role |	Number	

Suitability	Suitability Description	Revision
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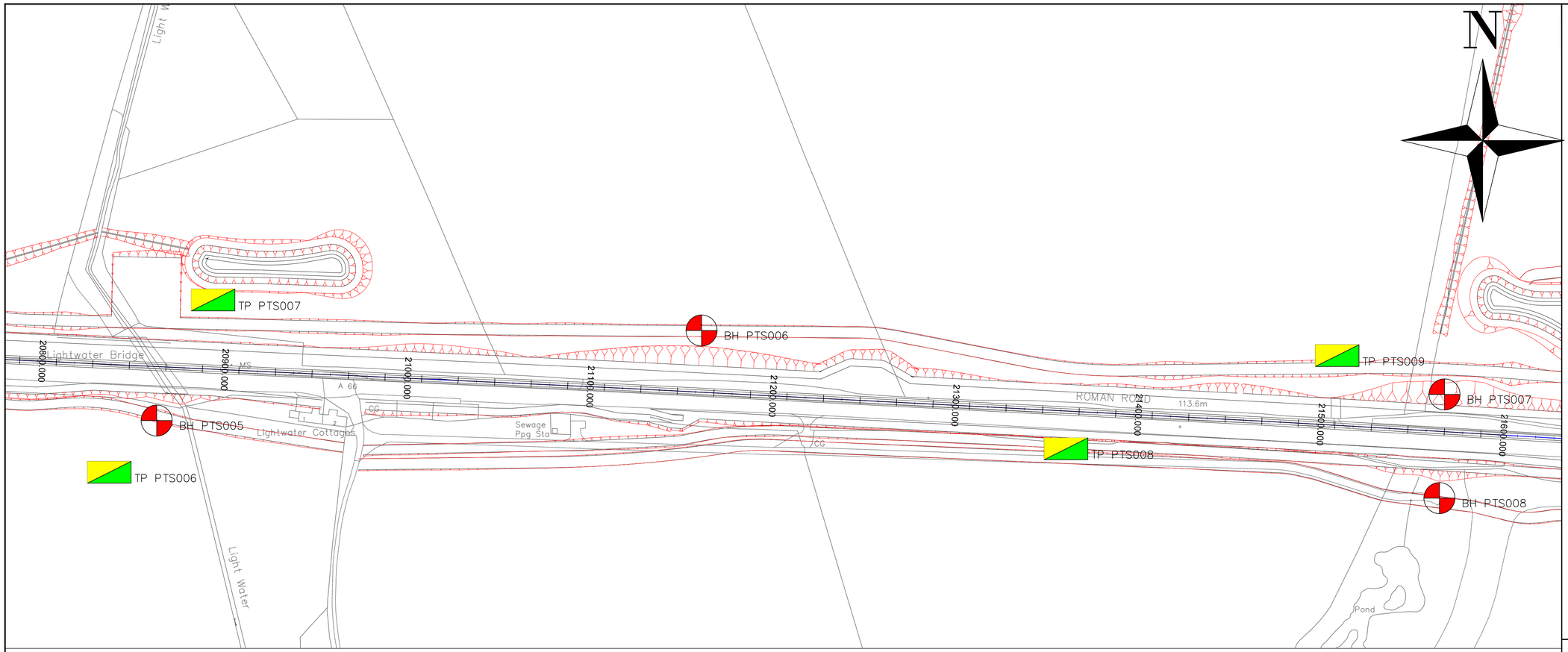


Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SST formation
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit

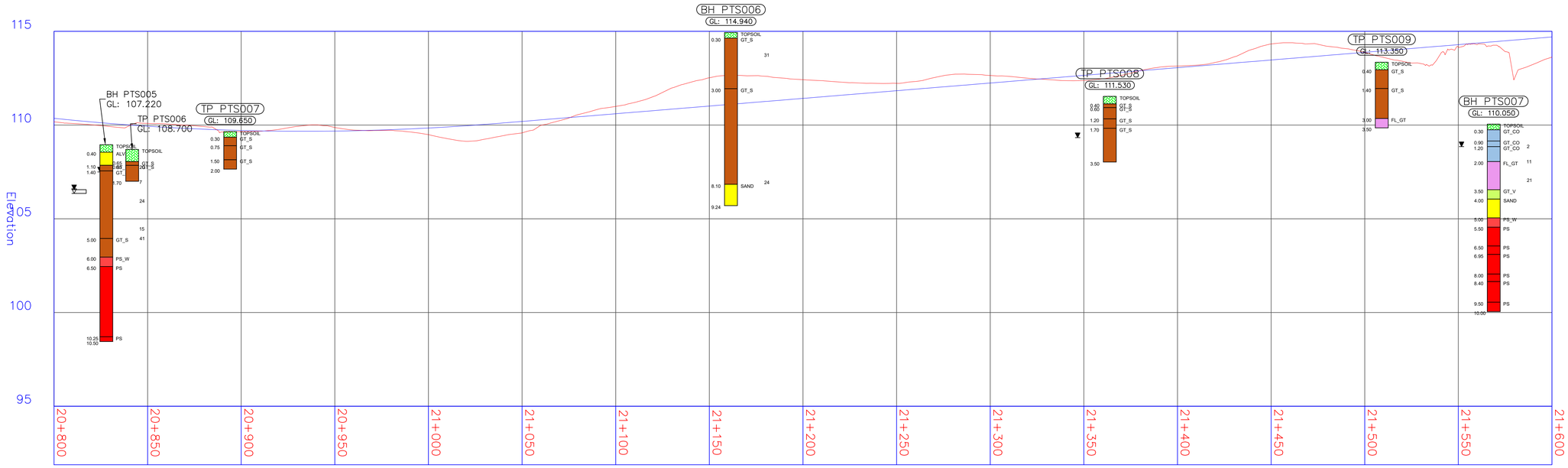
WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

Chainage 20800 – 21600



Revision					
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Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
GIR Drawings
Sheet 2 of 7

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
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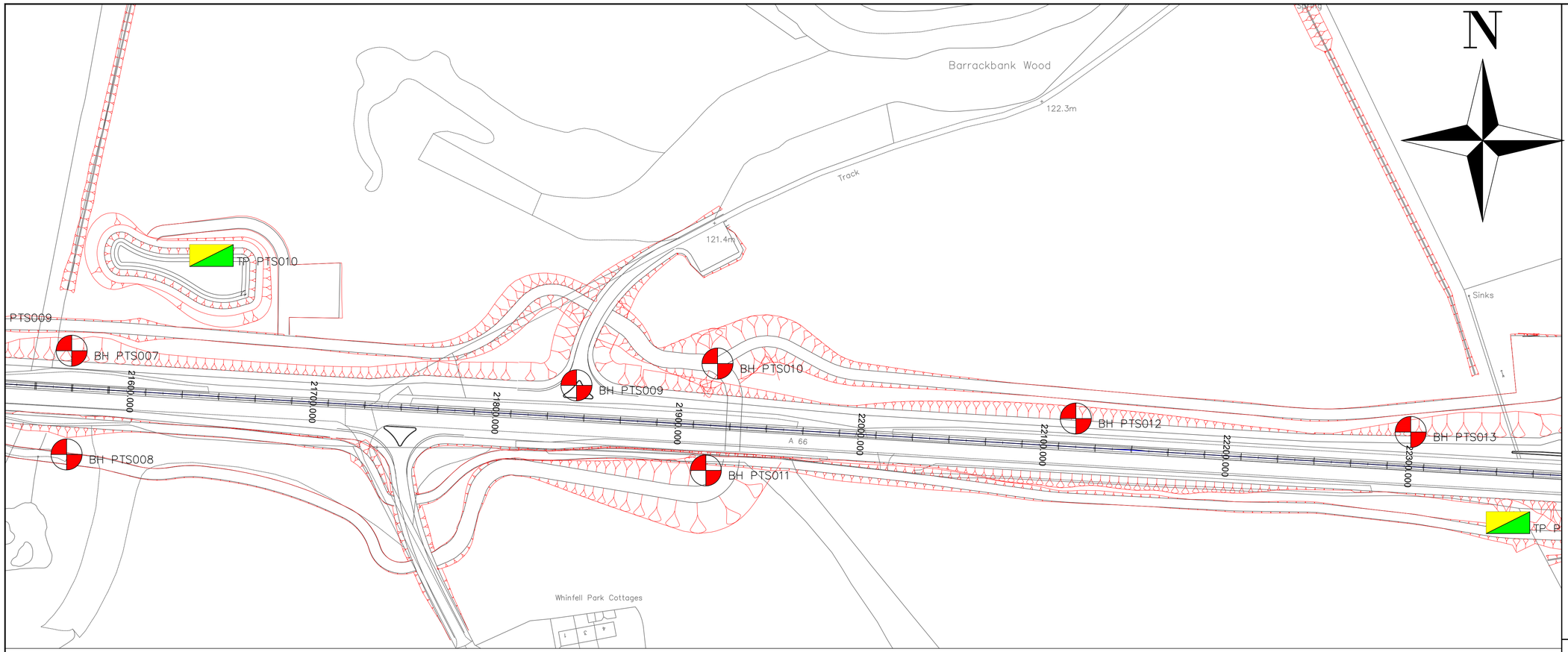
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
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EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

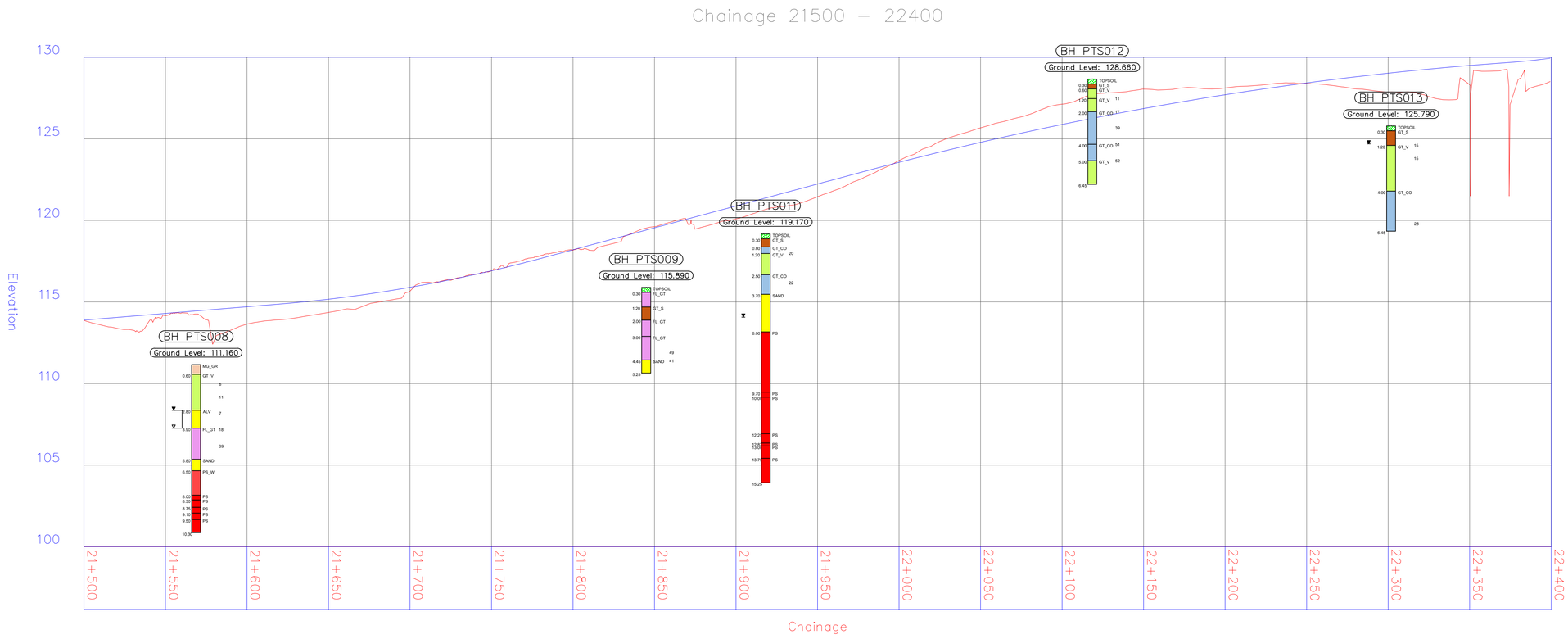
HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes



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P01	MHAR	MHAR	PCOF	PCOF	---	
	11/02/22	11/02/22	21/02/22	21/02/22	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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London, EC4A 1AB

A66 NTP Integrated Project Team

Client
3 Piccadilly Place
Manchester
M1 3BN

national highways

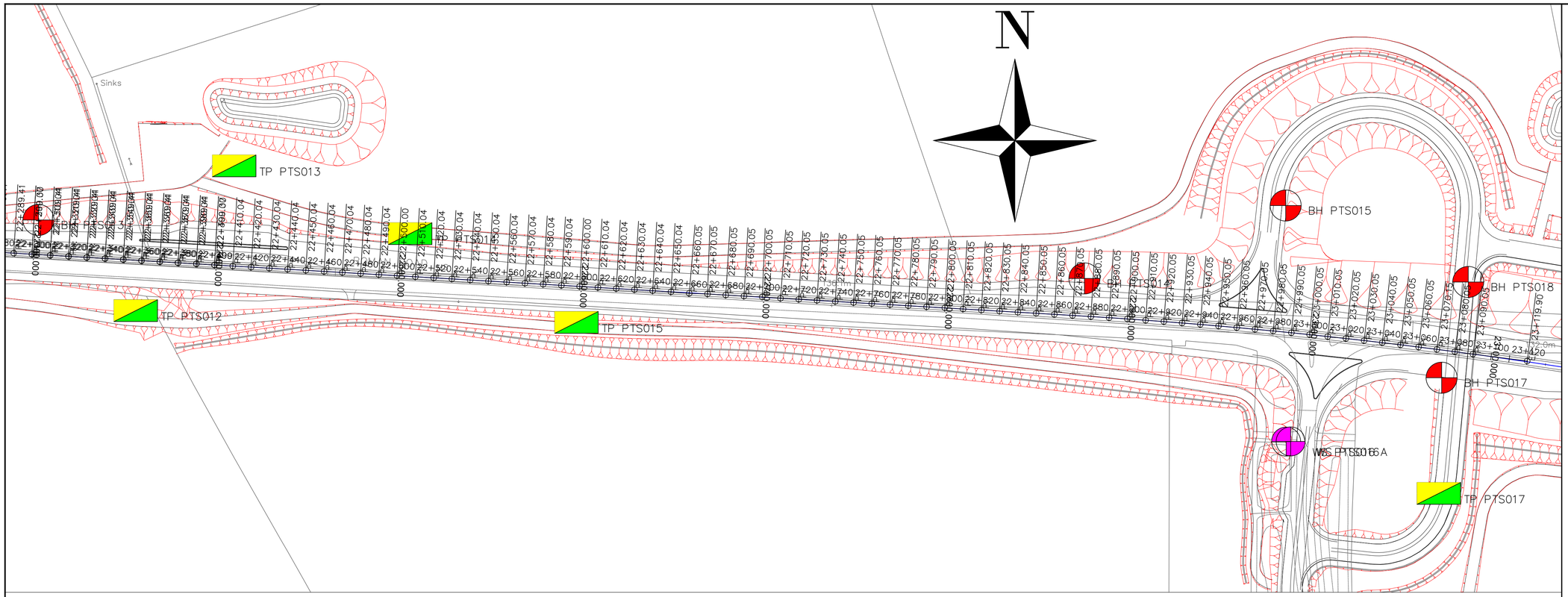
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
GIR Drawings
Sheet 3 of 7

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S03 -DR-CE- 000103
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



Legend

TOPSOIL	Topsoil
MG_CO	Made Ground–Cohesive
MG_GR	Made Ground – Granular
ALV	Alluvium
FL_GT	Fluvioglacial Deposits
SAND	Sand (>85% sand)
GT_CO	Glacial Till (cohesive)
GT_S	Glacial Till (granular)
GT_V	Glacial Till (sandy)
BRCK	Brockram – Conglomerate forming part of Penrith SST formation
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

HDTP Hand Pit
WS Window Sample
TP Trial Pits
BH Boreholes
BH Historic Boreholes

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P01						
	MHAR	MHAR	PCOF	PCOF	---	
	11/02/22	11/02/22	21/02/22	21/02/22	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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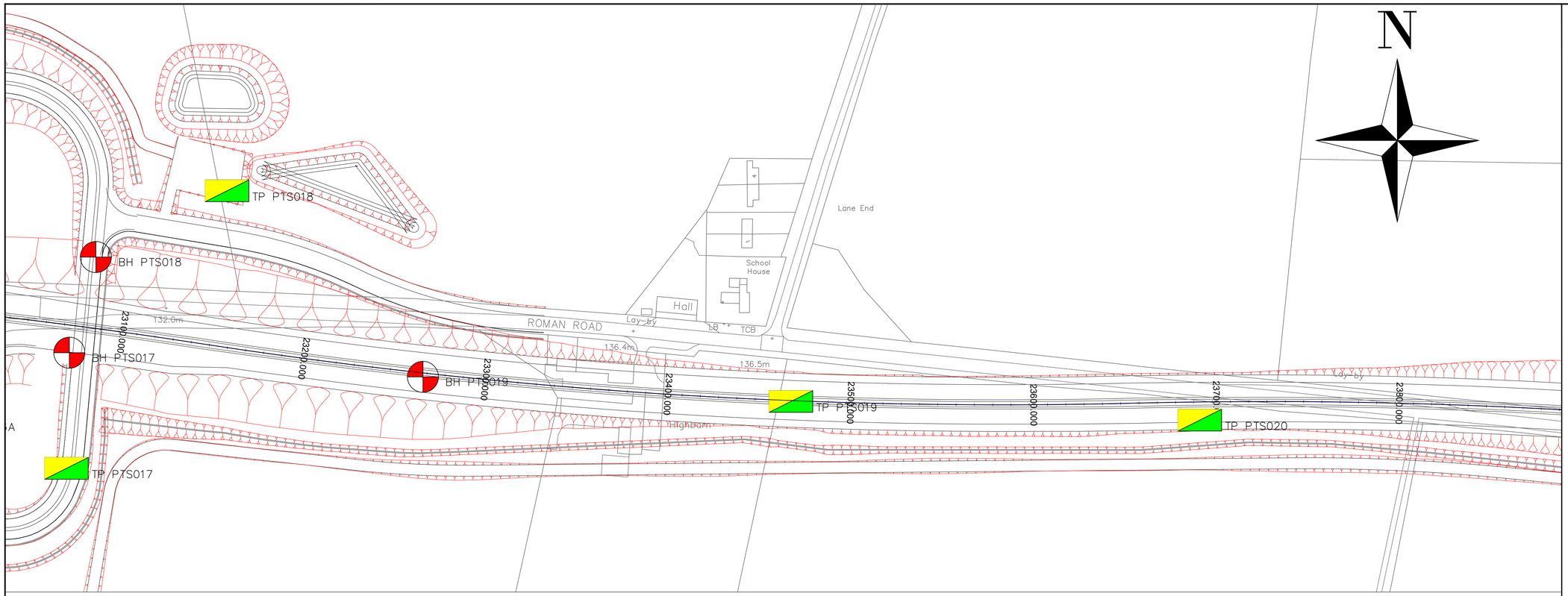
Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
GIR Drawings
Sheet 4 of 7

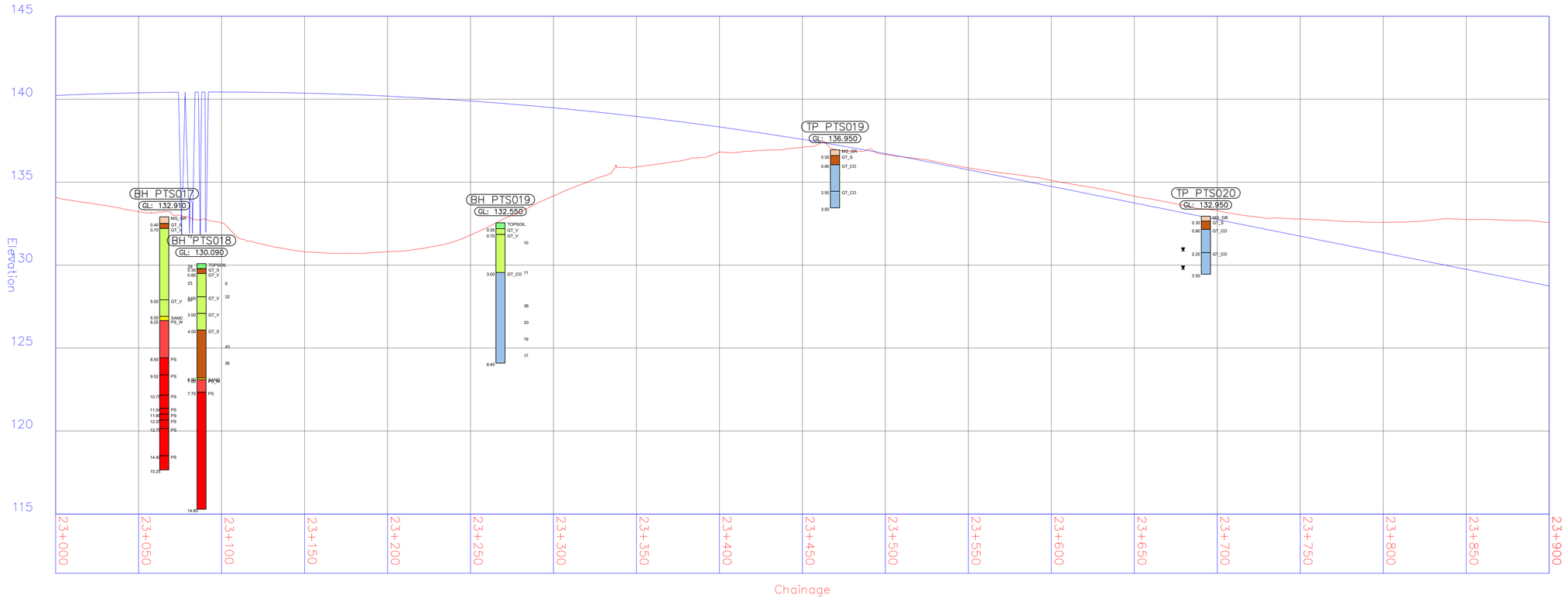
Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S03 -DR-CE- 000104
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



Chainage 23000– 23900



Legend

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	MG_CO	Made Ground–Cohesive
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	ALV	Alluvium
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	PS	Penrith Sandstone Formation

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01	MHAR	MHAR	PCOF	PCOF	---	
	11/02/22	11/02/22	21/02/22	21/02/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

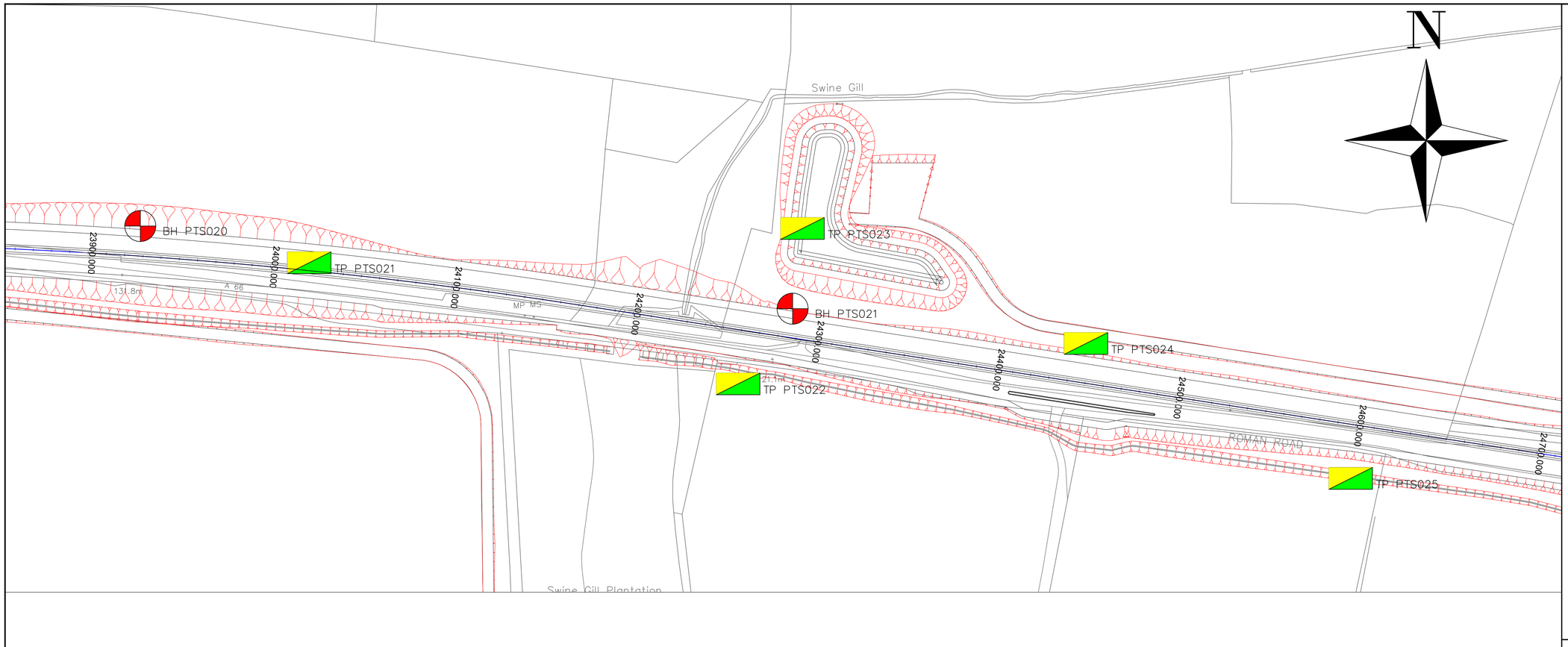
Drawing Title
Package B
Center Parcs
GIR Drawings
Sheet 5 of 7

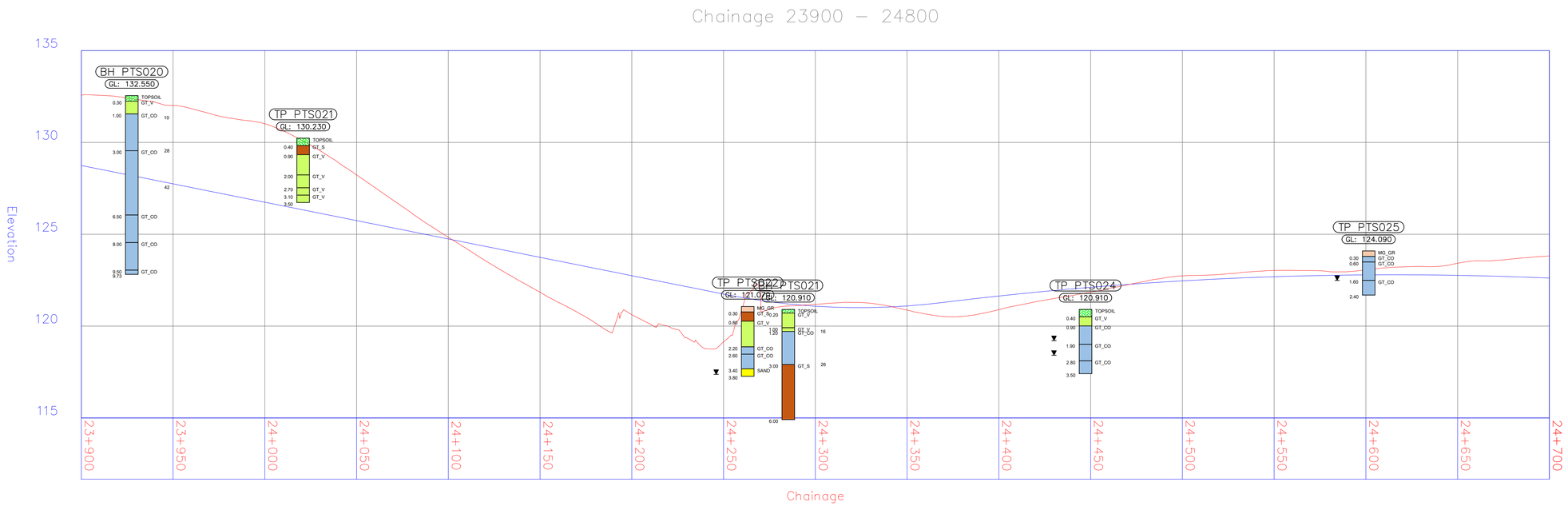
Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S03	-DR-	CE-	000105	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01





Legend		
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HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

BH Historic Boreholes

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P01						
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	11/02/22	11/02/22	21/02/22	21/02/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

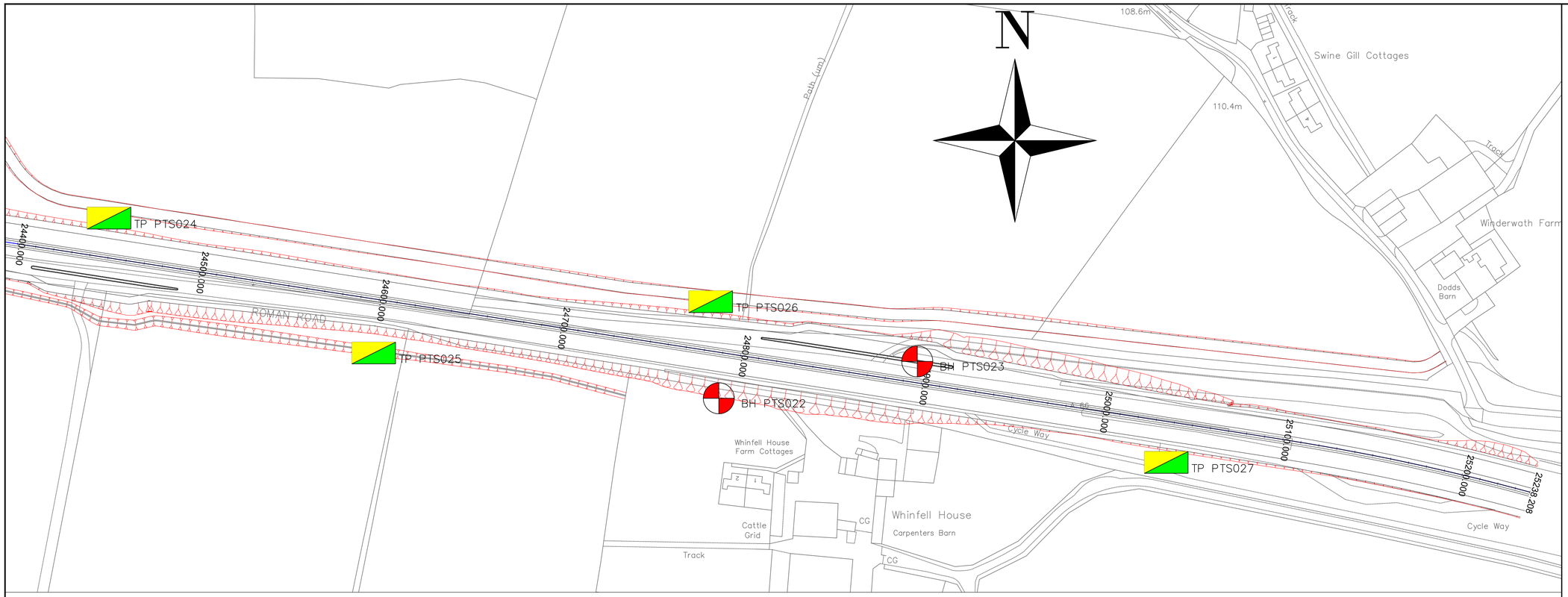
Drawing Title
Package B
Center Parcs
GIR Drawings
Sheet 6 of 7

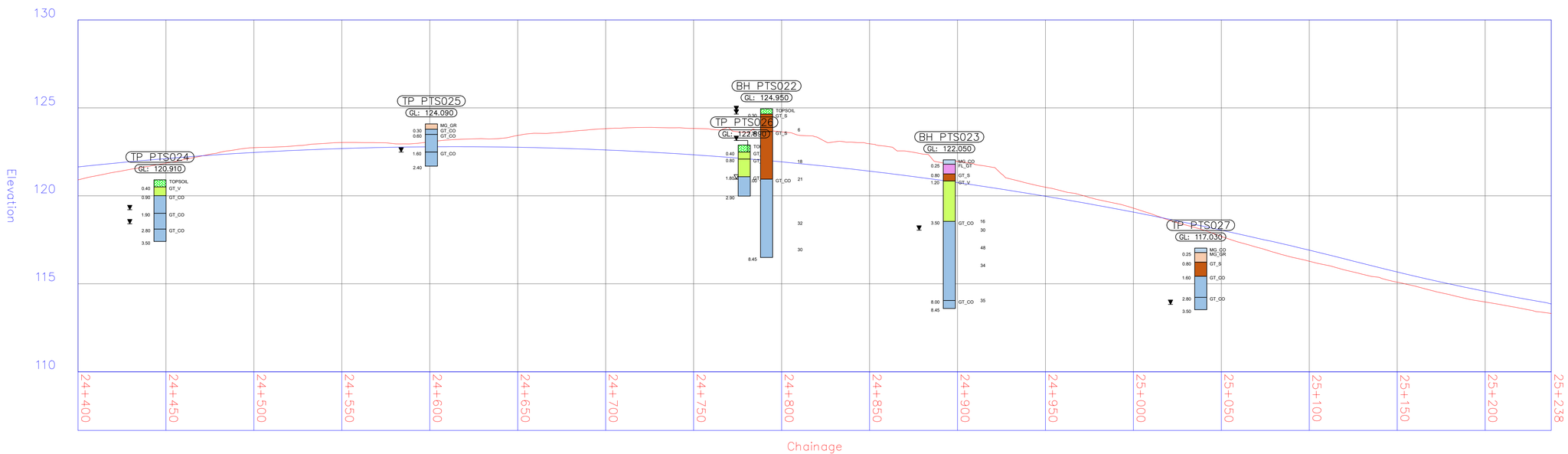
Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627	- AMY	- HGT	-		
S03		-DR	-CE	- 000106	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01





Legend

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HDTP Hand Pit
WS Window Sample
TP Trial Pits
BH Boreholes
BH Historic Boreholes

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P01		MHAR	MHAR	PCOF	PCOF	---
		11/02/22	11/02/22	21/02/22	21/02/22	---
Revision	Revision details	Created	Checked	Reviewed	Approved	Authorised
		dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
GIR Drawings
Sheet 7 of 7

Project Ref. No.	Stage	Scale : 1:1250 @ A1
---	PCF3	Dimensions : M

Drawing Number

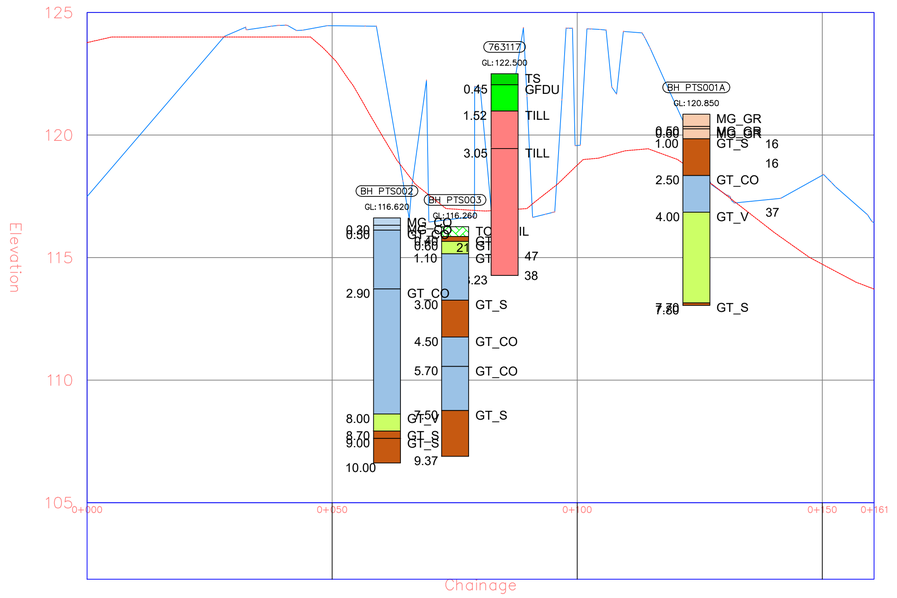
Project	Originator	Volume			
HE565627 -	AMY -	HGT -			
S03		-DR-	CE-	000107	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01

North

South

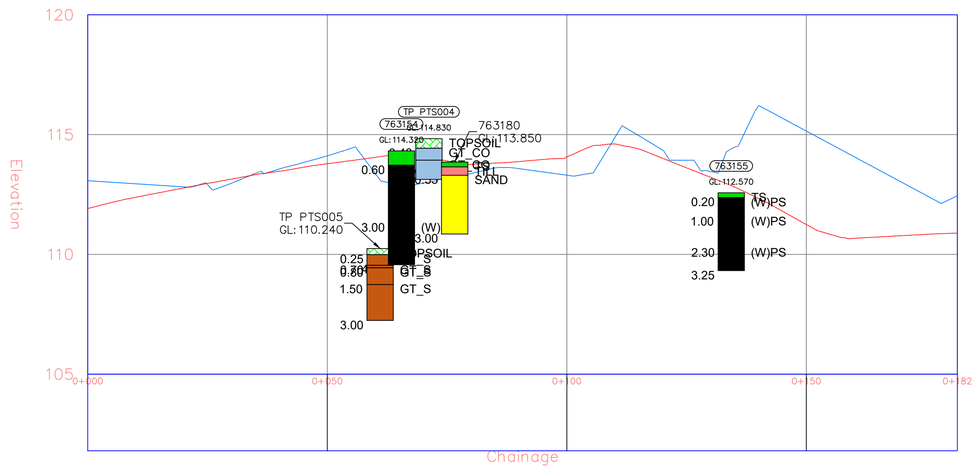
Brougham Accommodation Overbridge



North

South

Shell pipeline



RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

1. Please enter project specific hazards here.

NOTES

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Legend	
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MG_GR	Made Ground – Granular
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GT_V	Glacial Till (sandy)
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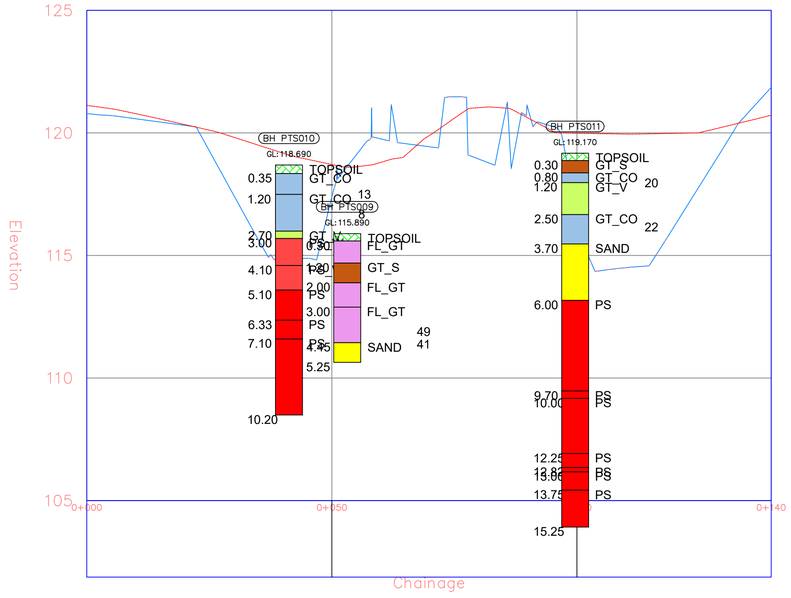
EDSH	Eden Shales Formation
PS_W	Weathered Penrith Sandstone
PS	Penrith Sandstone Formation

North

South

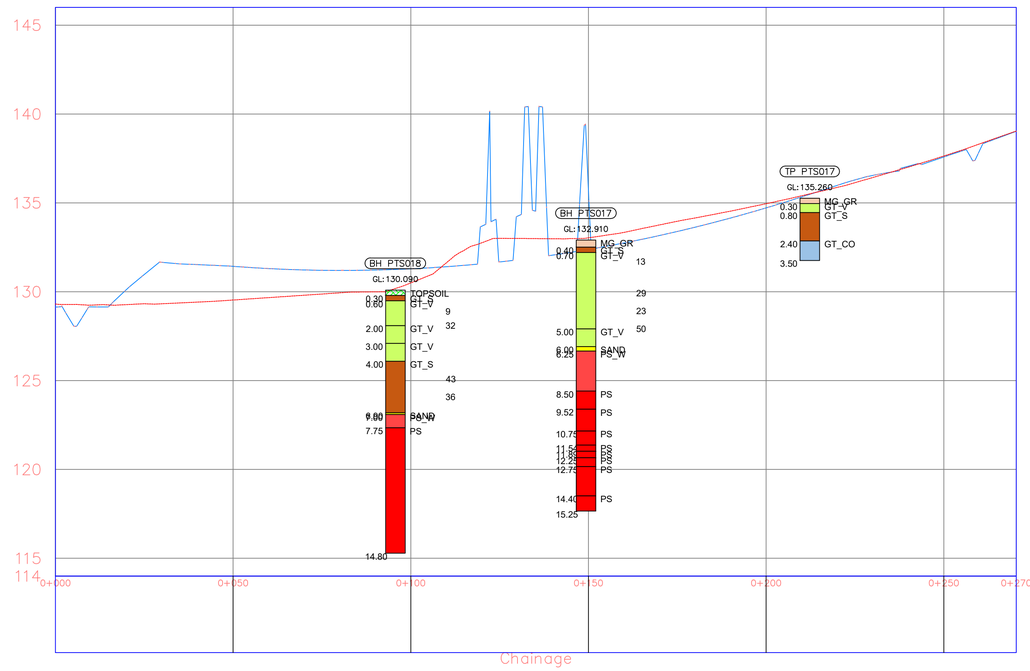
Whinfell Park Underpass



North

South

Centreparcs Bridge



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	17/02/22	17/02/22	21/02/22	21/02/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

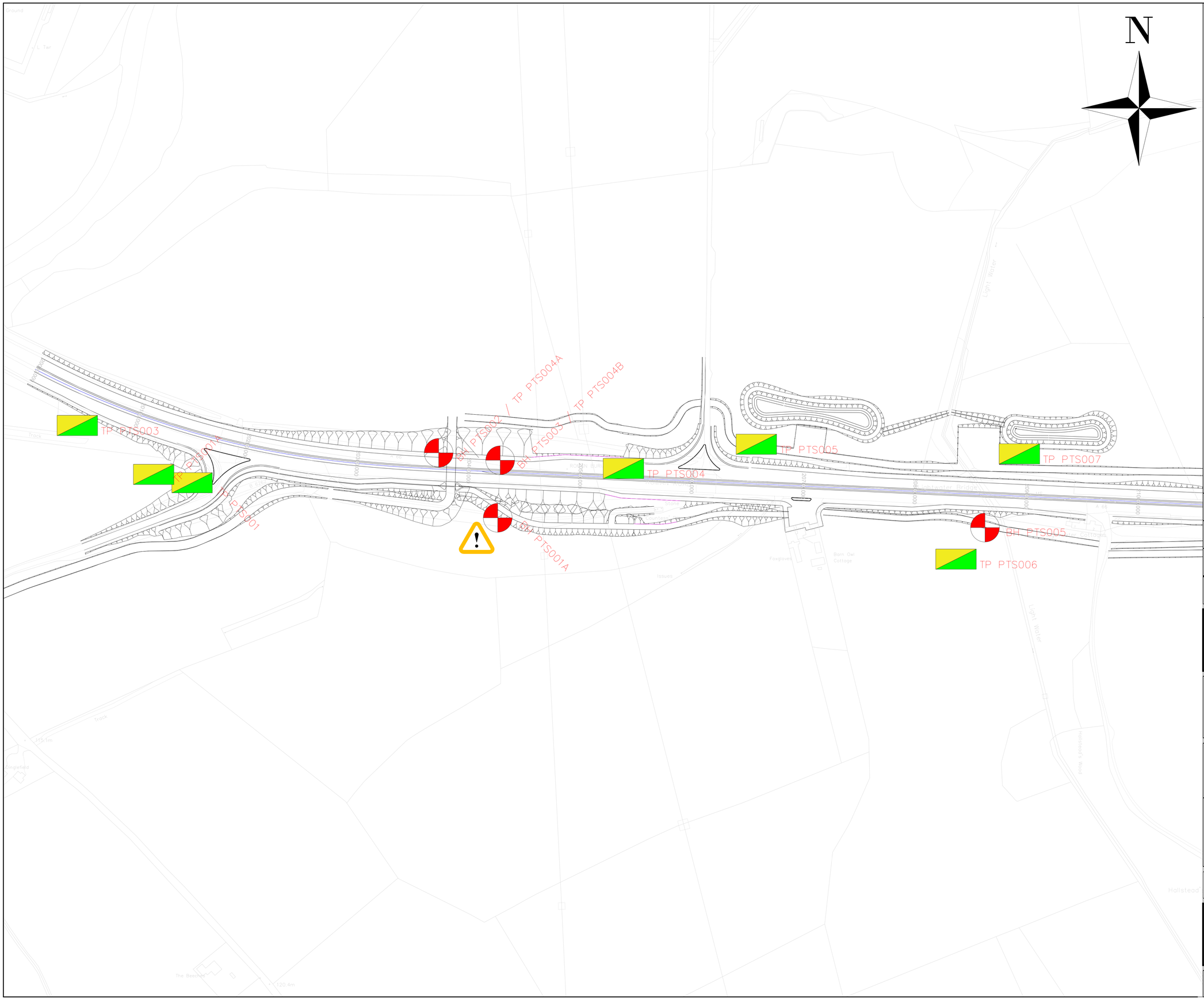
Drawing Title
Package B
Centreparcs
Structures Geotechnical Appraisal
Sheet 1 of 1

Project Ref. No.	Stage	Scale : N/A @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S03		-DR-CE-	000301	
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



Geo-Environmental Hazards

BH PTS001a

- *0.40mbgl - Asbetsos, PAH Exceedances & Hazardous Classification=*
- *0.70mbgl - PAH Exceedances & Hazardous Classification*

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

Revision						
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	16/12/21	16/12/21	16/12/21	05/01/22	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Soils Sheet 3 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
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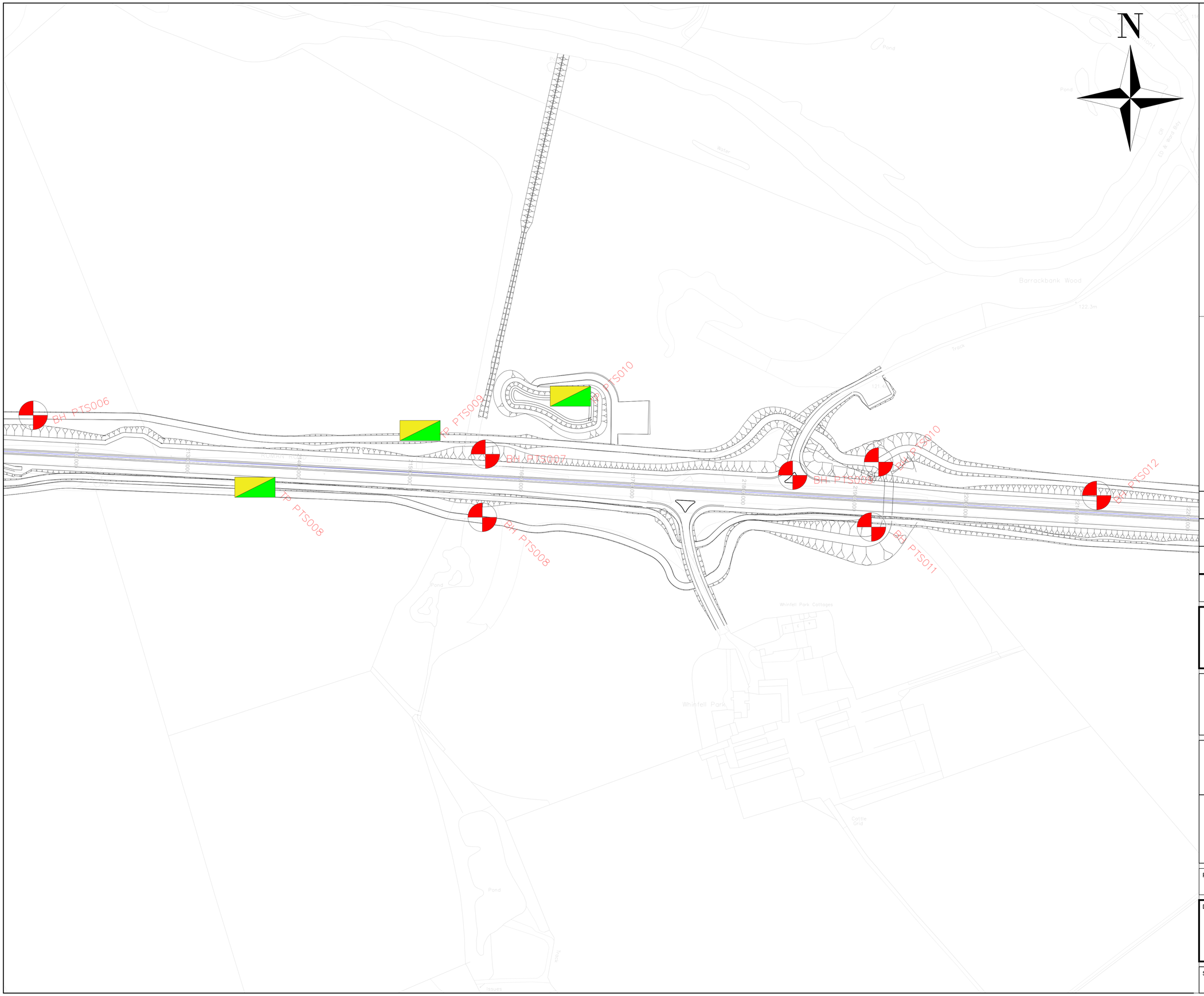

Geo-Environmental Hazards

- *None noted*

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

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P01					
	MHAR	MHAR	JMOR	GMCG	---
	16/12/21	16/12/21	16/12/21	05/01/22	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

Designer
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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Soils Sheet 4 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY	- HGT	-	
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Location		Type	Role	Number

Suitability	Suitability Description	Revision
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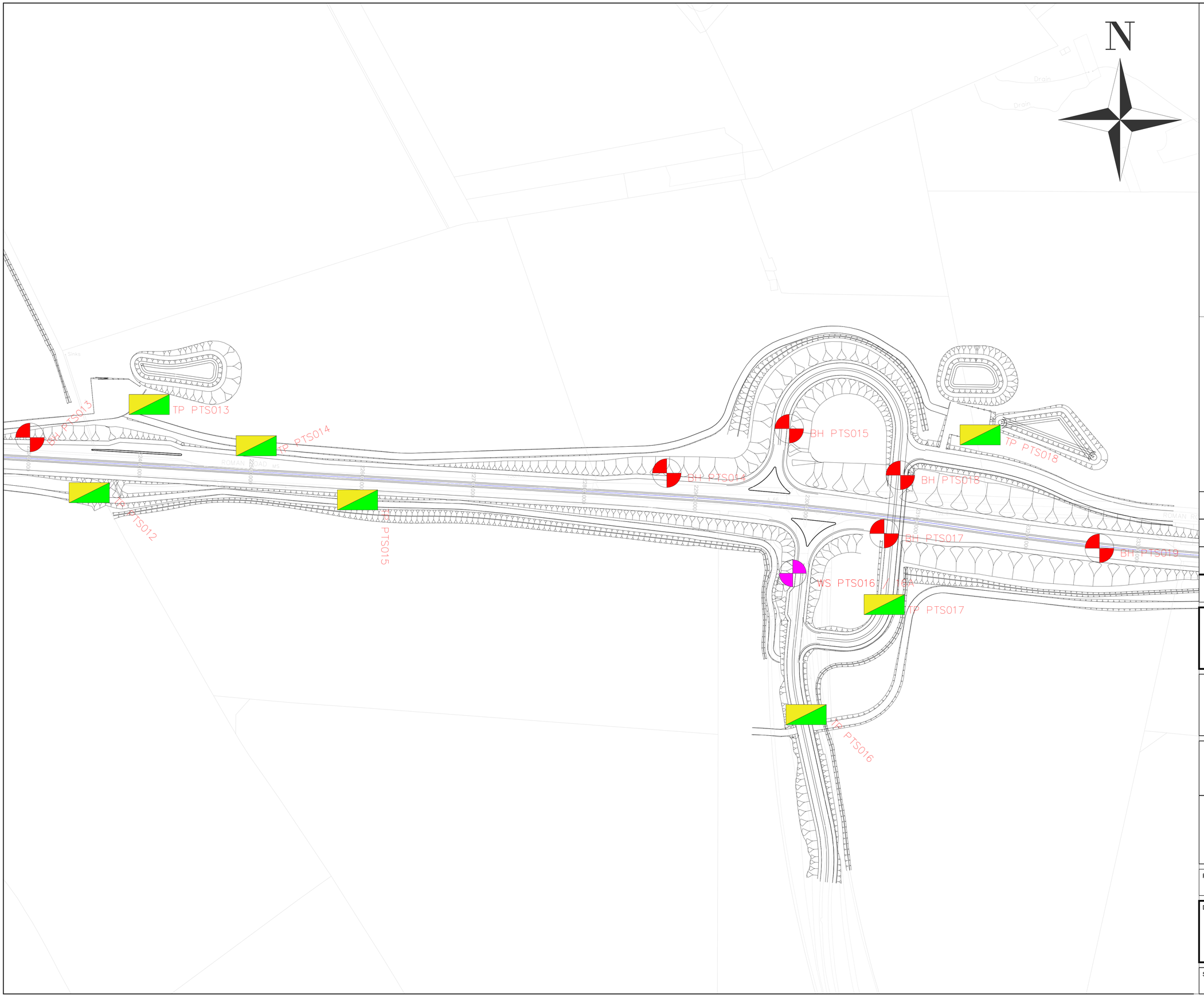

Geo-Environmental Hazards

- *None noted*

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

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P01	MHAR	MHAR	JMOR	GMCG	---
	16/12/21	16/12/21	16/12/21	05/01/22	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Soils Sheet 5 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627	AMY	HGT			
S03		DR	CE	000119	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
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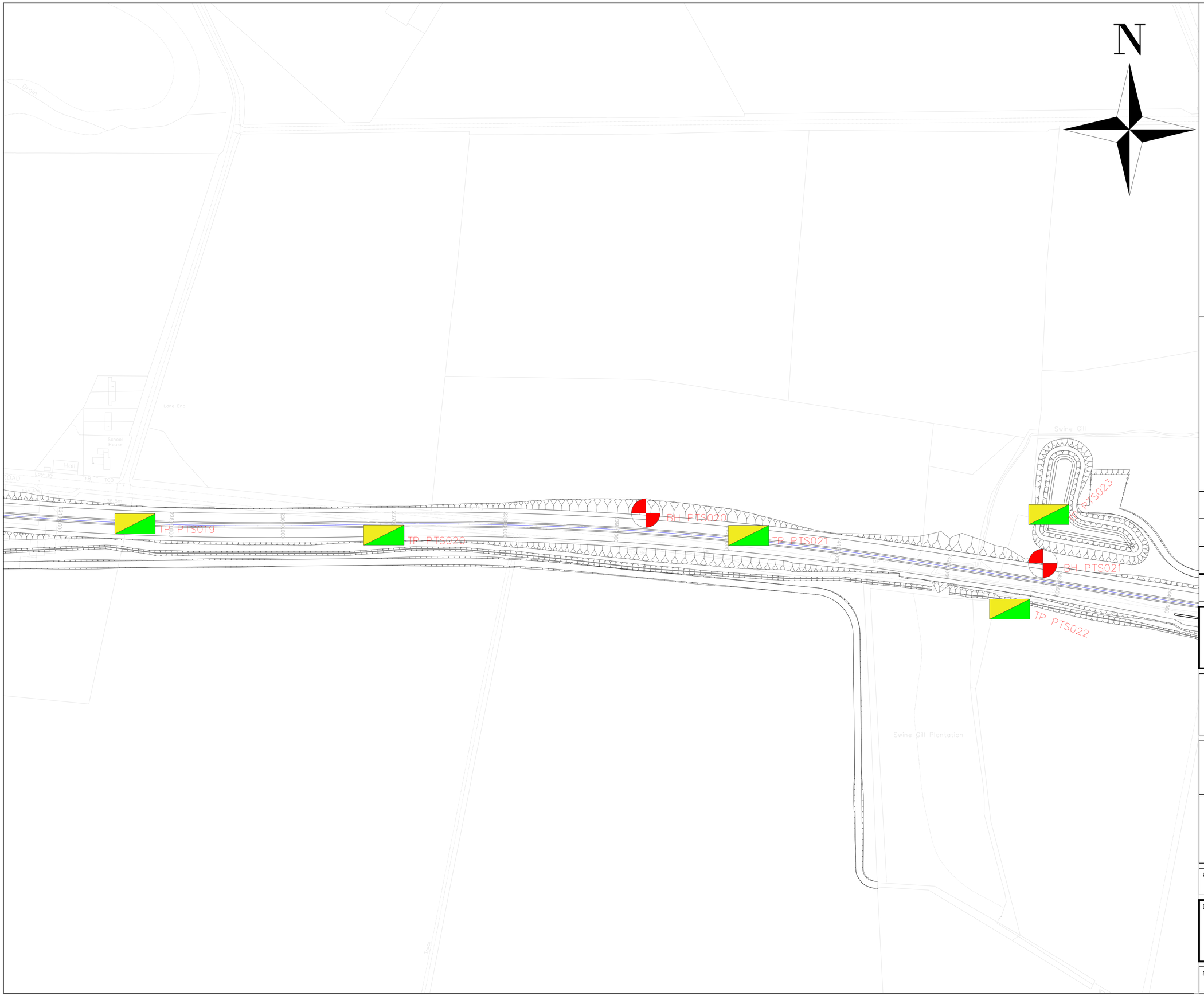

⚠ Geo-Environmental Hazards

- *None Noted*

HDTP Hand Pit

WS Window Sample

TP Trial Pits

BH Boreholes

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	16/12/21	16/12/21	16/12/21	05/01/22	---

Revision	Revision details				
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	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

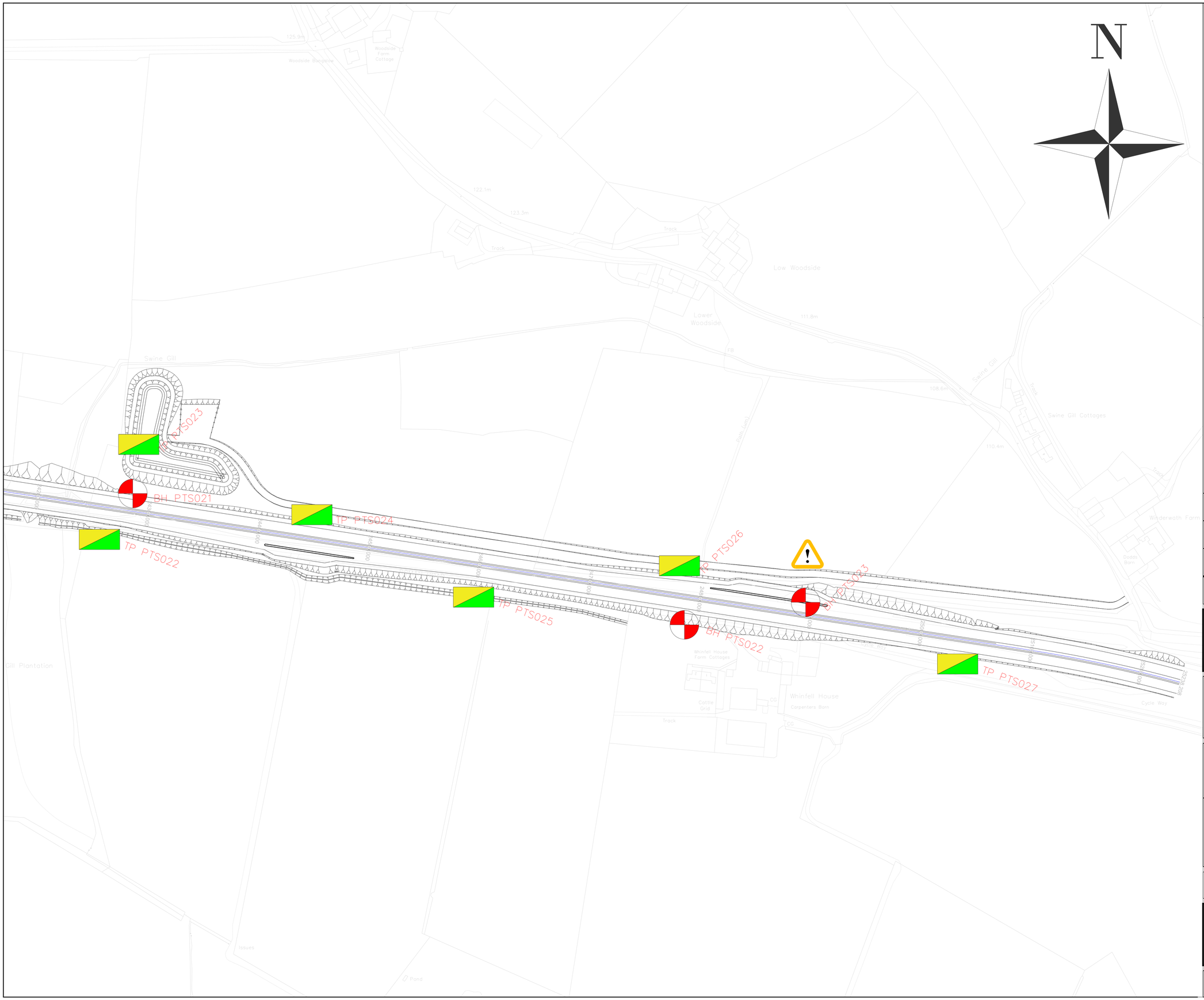
Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Soils Sheet 6 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY	- HGT	-	
S03		- DR -	CE -	000120
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



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	MHAR	MHAR	JMOR	GMCG	---	
	16/12/21	16/12/21	16/12/21	05/01/22	---	

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	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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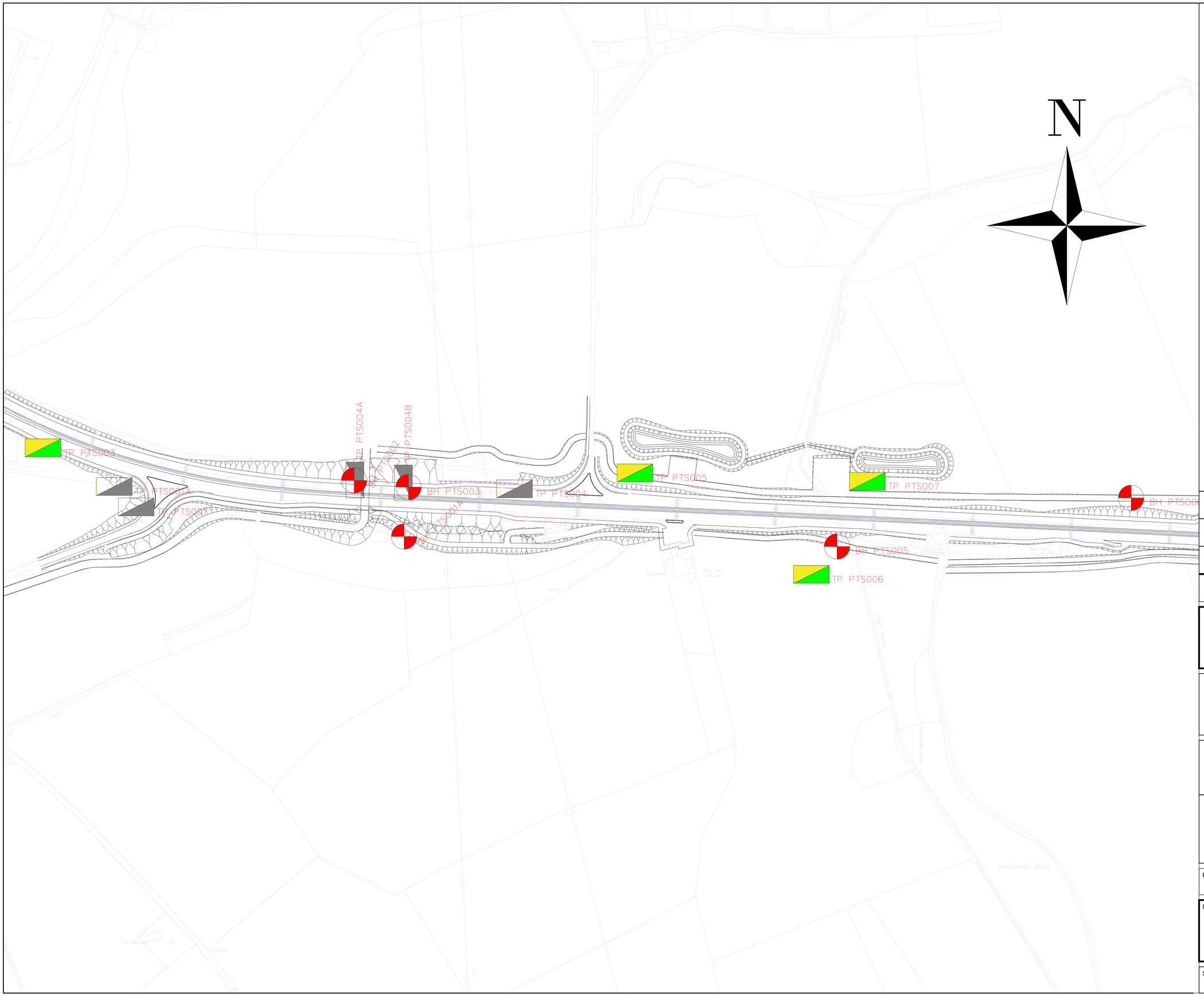
Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Soils Sheet 7 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S03	-DR-	CE-	000121	
Location	Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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P01					
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	16/12/21	16/12/21	16/12/21	05/01/22	---

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Leachate Sheet 3 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
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Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S03		-DR-	CE -	000108
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	16/12/21	16/12/21	16/12/21	05/01/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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M1 3BN

national highways

Project Name
A66 Northern Trans-Pennine

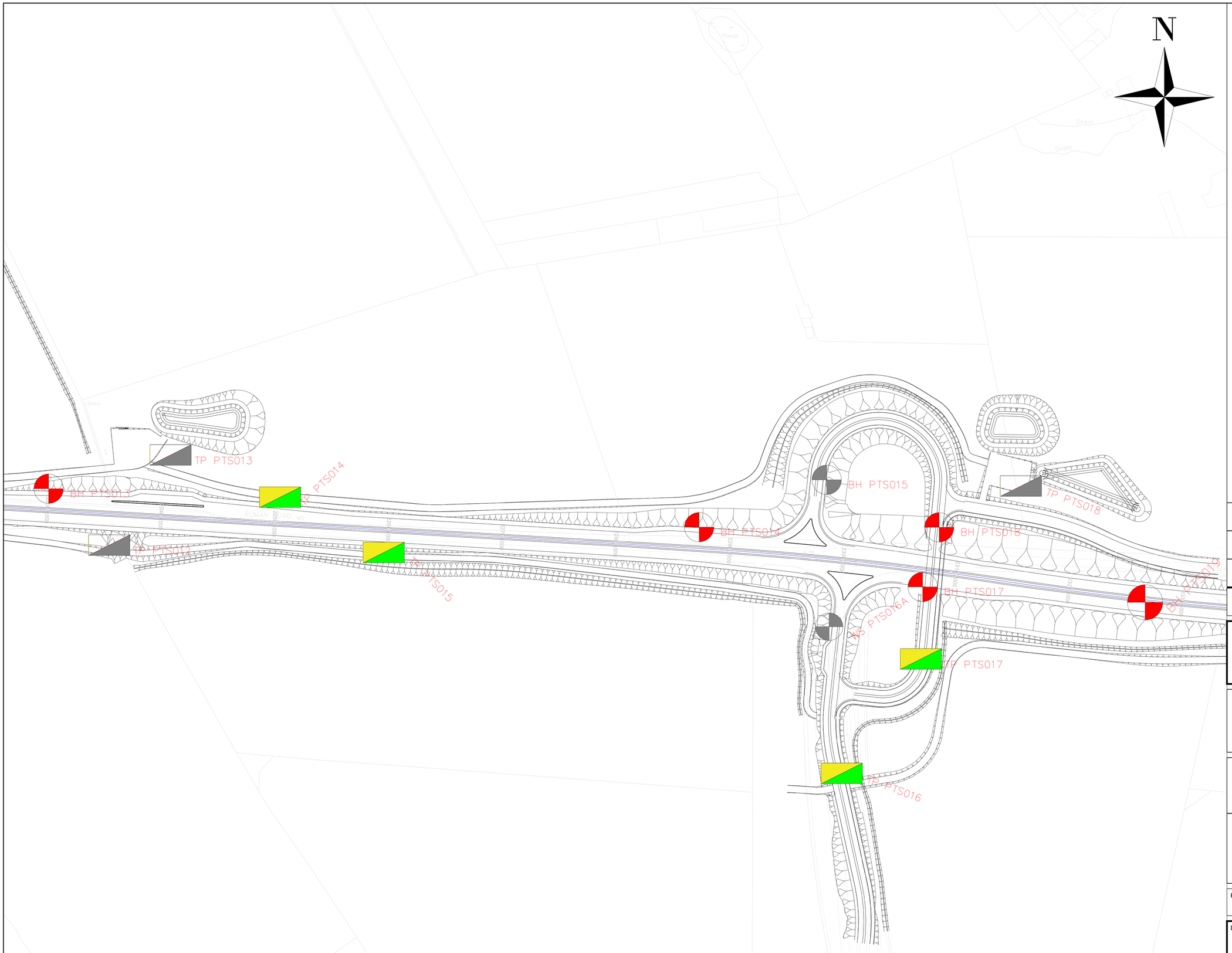
Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Leachate Sheet 4 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S03		-DR-	CE-	000109
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

---	---					
	---	---	---	---	---	---
	---	---	---	---	---	---
---	---					
	---	---	---	---	---	---
	---	---	---	---	---	---
P01						
	MHAR	MHAR	JMOR	GMCG	---	
	16/12/21	16/12/21	16/12/21	05/01/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

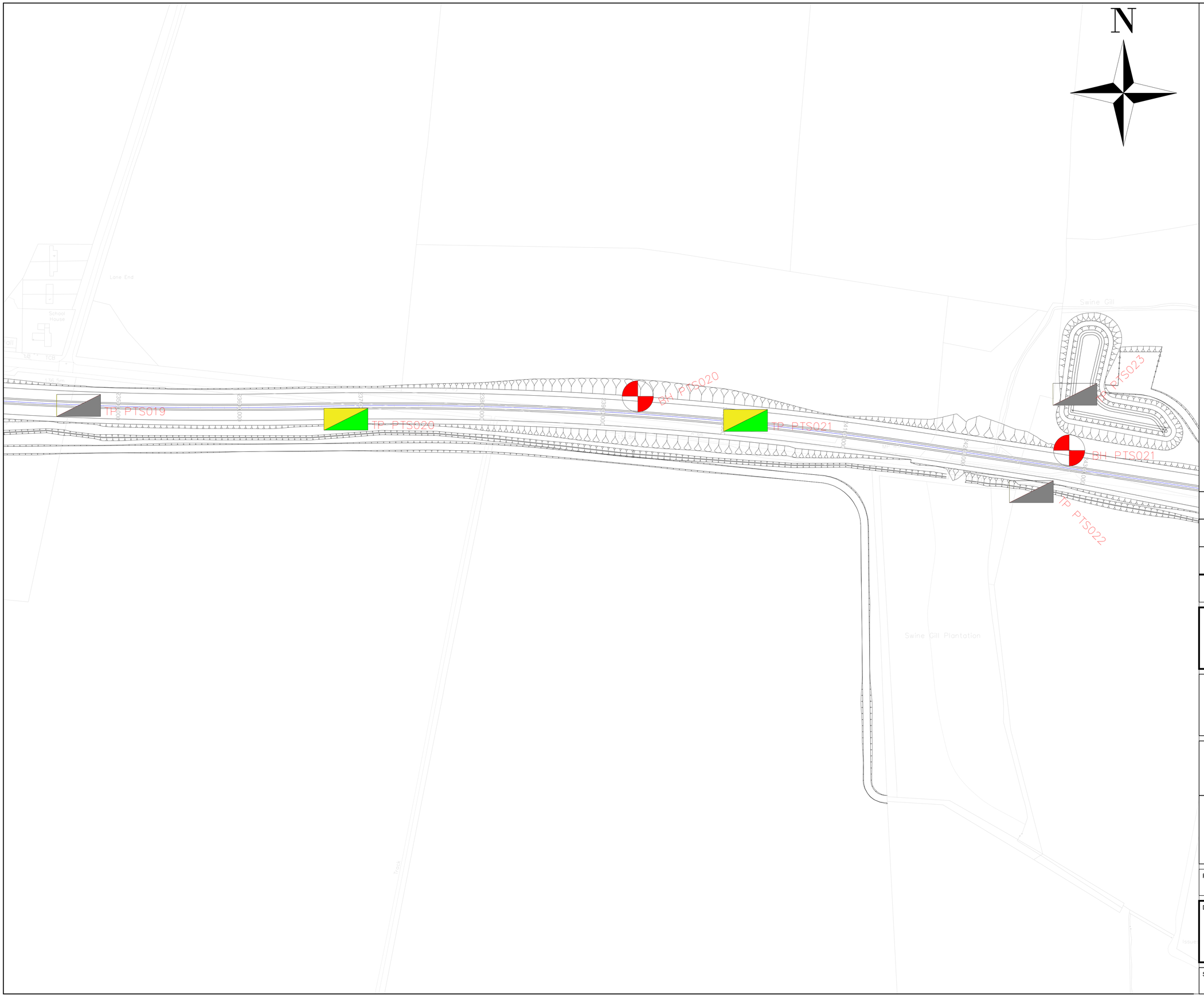
Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Leachate Sheet 5 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627 -	AMY -	HGT -			
S03		-DR-	CE-	000110	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



HDTP Hand Pit

HDTP Unused Hand Pit

WS Window Sample

WS Unused Window Sample

TP Trial Pits

TP Unused Trial Pits

BH Boreholes

BH Unused Boreholes

---	---				
	---	---	---	---	---
	---	---	---	---	---
	---	---	---	---	---
P01					
	MHAR	MHAR	JMOR	GMCG	---
	16/12/21	16/12/21	16/12/21	05/01/22	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Leachate Sheet 6 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY	- HGT	-	
S03		-DR-	CE-	000111
Location		Type	Role	Number

Suitability	Suitability Description	Revision
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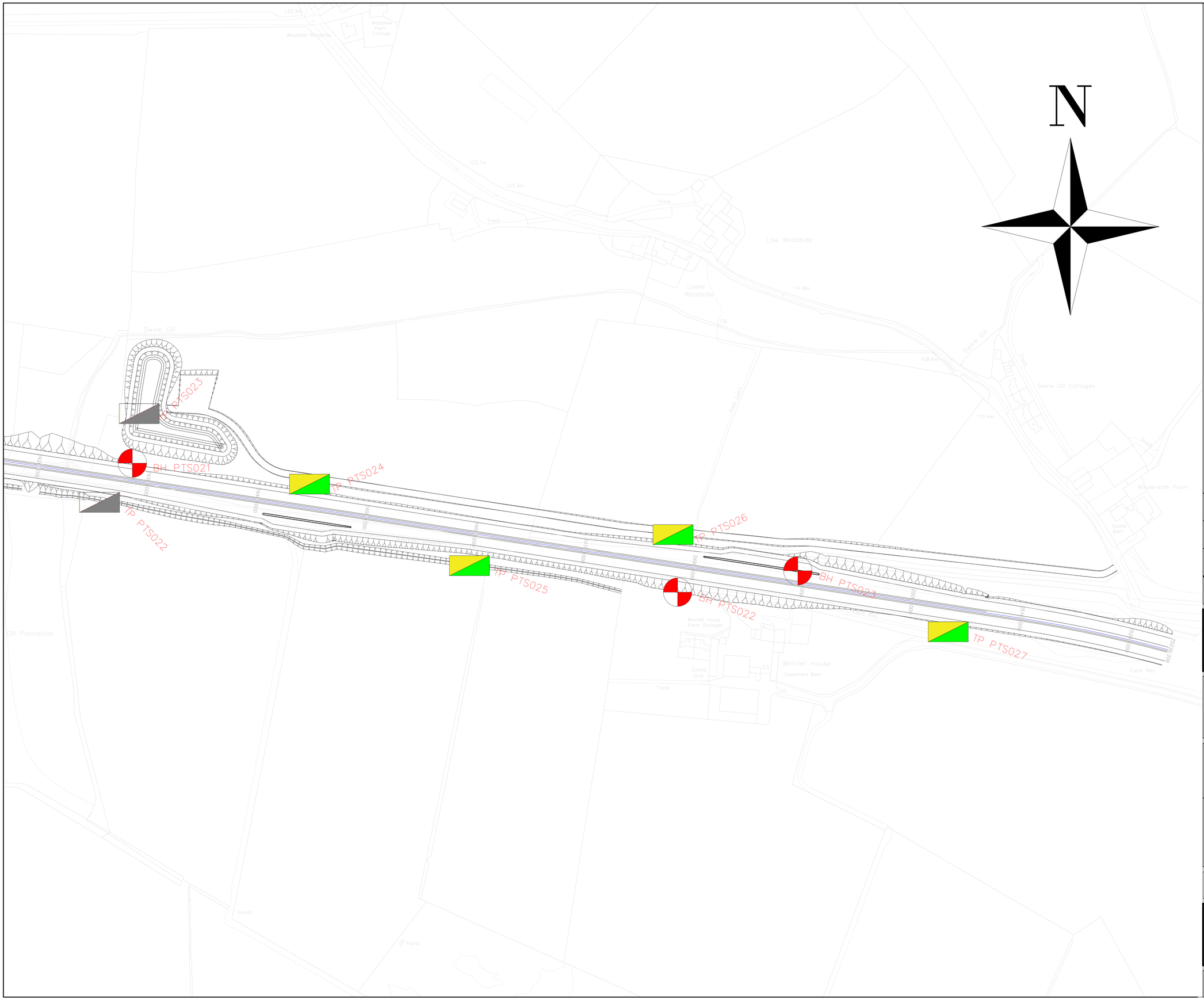

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P01						
	MHAR	MHAR	JMOR	GMCG	---	
	16/12/21	16/12/21	16/12/21	05/01/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
A66 Northern Trans-Pennine

Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Leachate Sheet 7 of 7

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGT -
S03 - DR - CE - 000112
Location | Type | Role | Number

Suitability	Suitability Description	Revision
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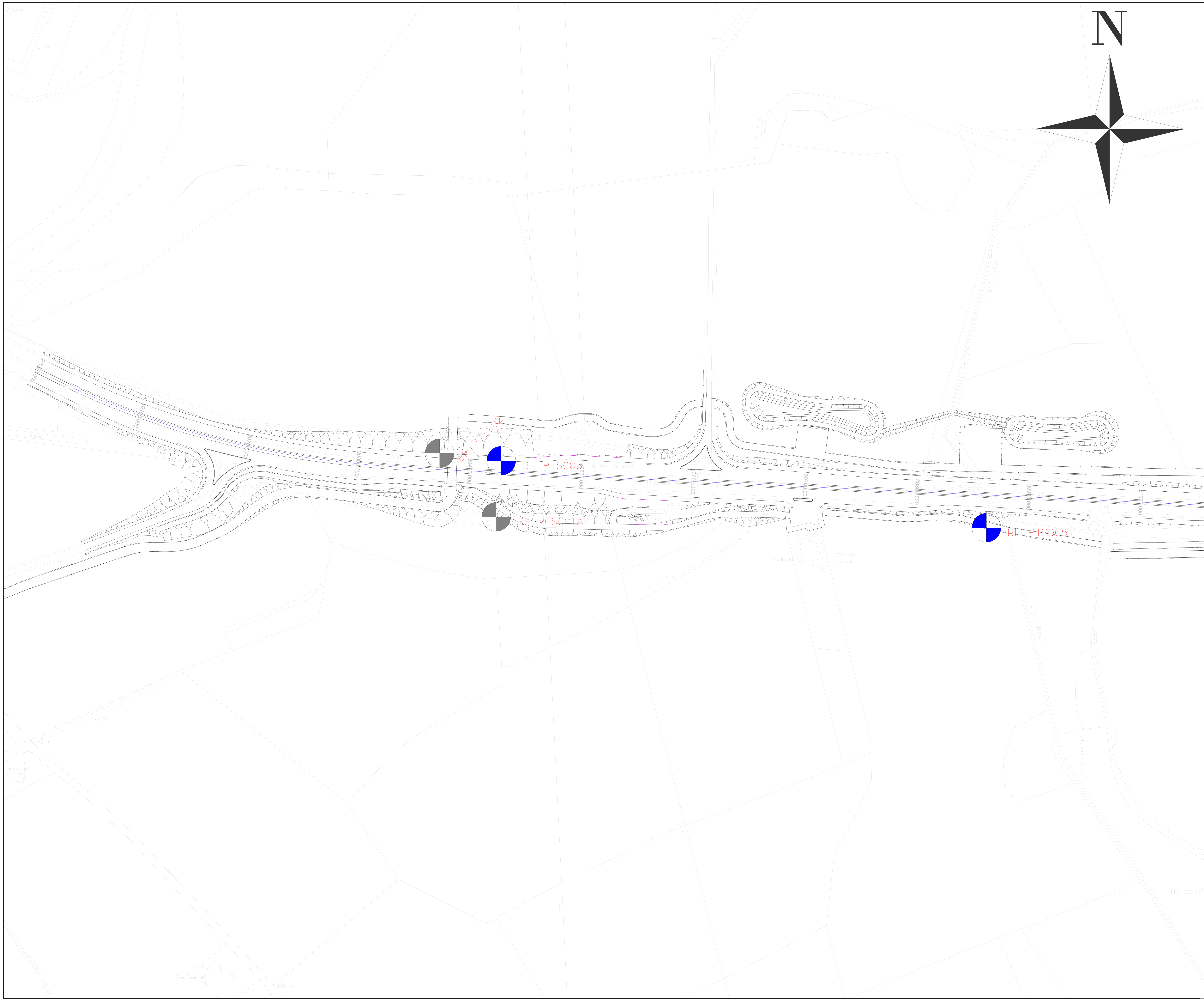

(symbol)	BH	Boreholes
(symbol)	BH	Boreholes with Installations
(symbol)	BH	Groundwater Samples

Revision	Revision details				
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	---	---	---	---	---
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	---	---	---	---	---
P01					
	MHAR	MHAR	JMOR	GMCG	---
	16/12/21	16/12/21	16/12/21	05/01/22	---
Revision	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Groundwater Sheet 3 of 6

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume	Location	Type	Role	Number
HE565627	AMY	HGT	S03	DR	CE	000113

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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	---	---	---	---	---
P01					
	MHAR	MHAR	JMOR	GMCG	---
	16/12/21	16/12/21	16/12/21	05/01/22	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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Project Name
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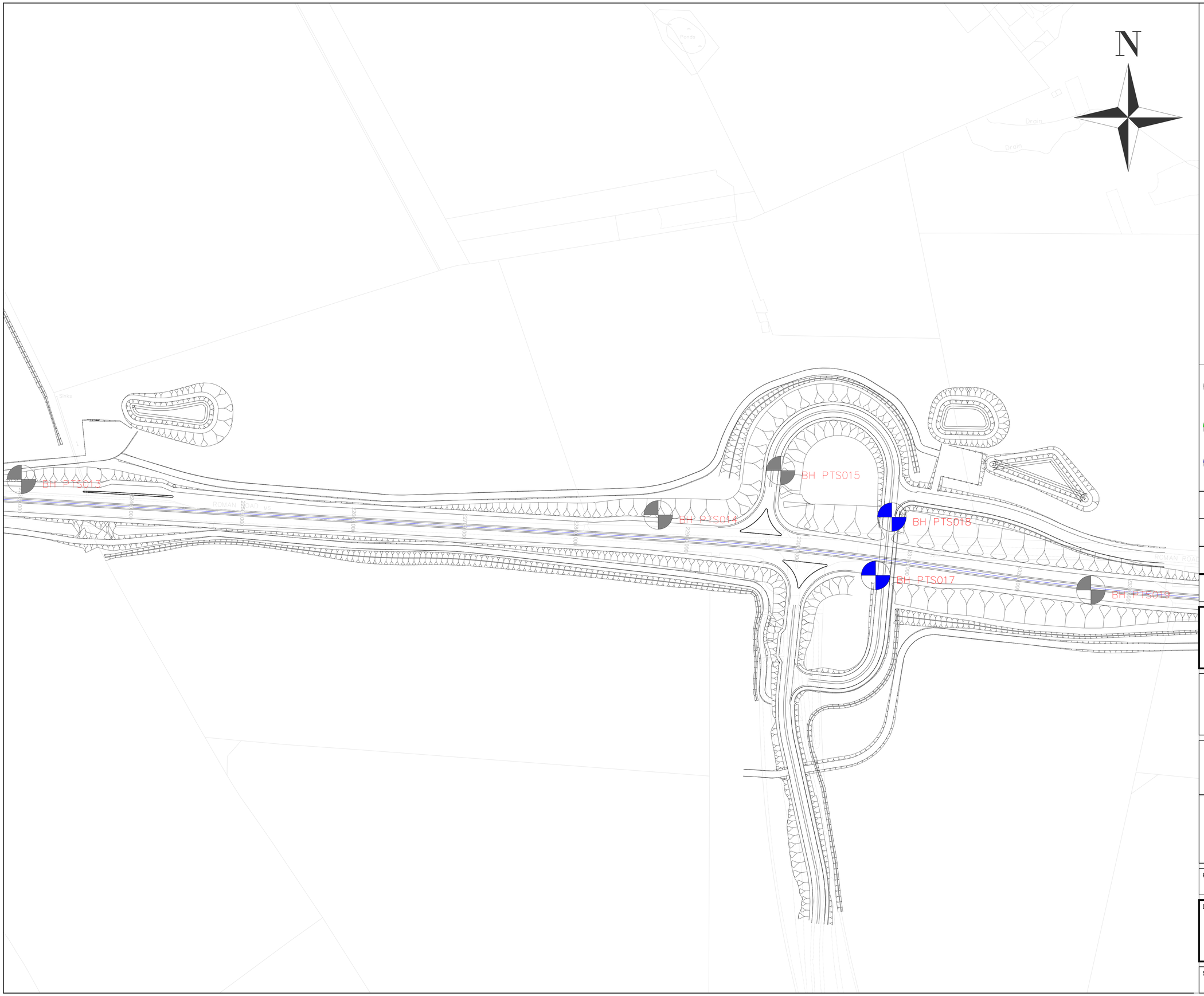
Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Groundwater Sheet 4 of 6

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S03		-DR-	CE-	000114
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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P01	MHAR	MHAR	JMOR	GMCG	---	
	16/12/21	16/12/21	16/12/21	05/01/22	---	

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

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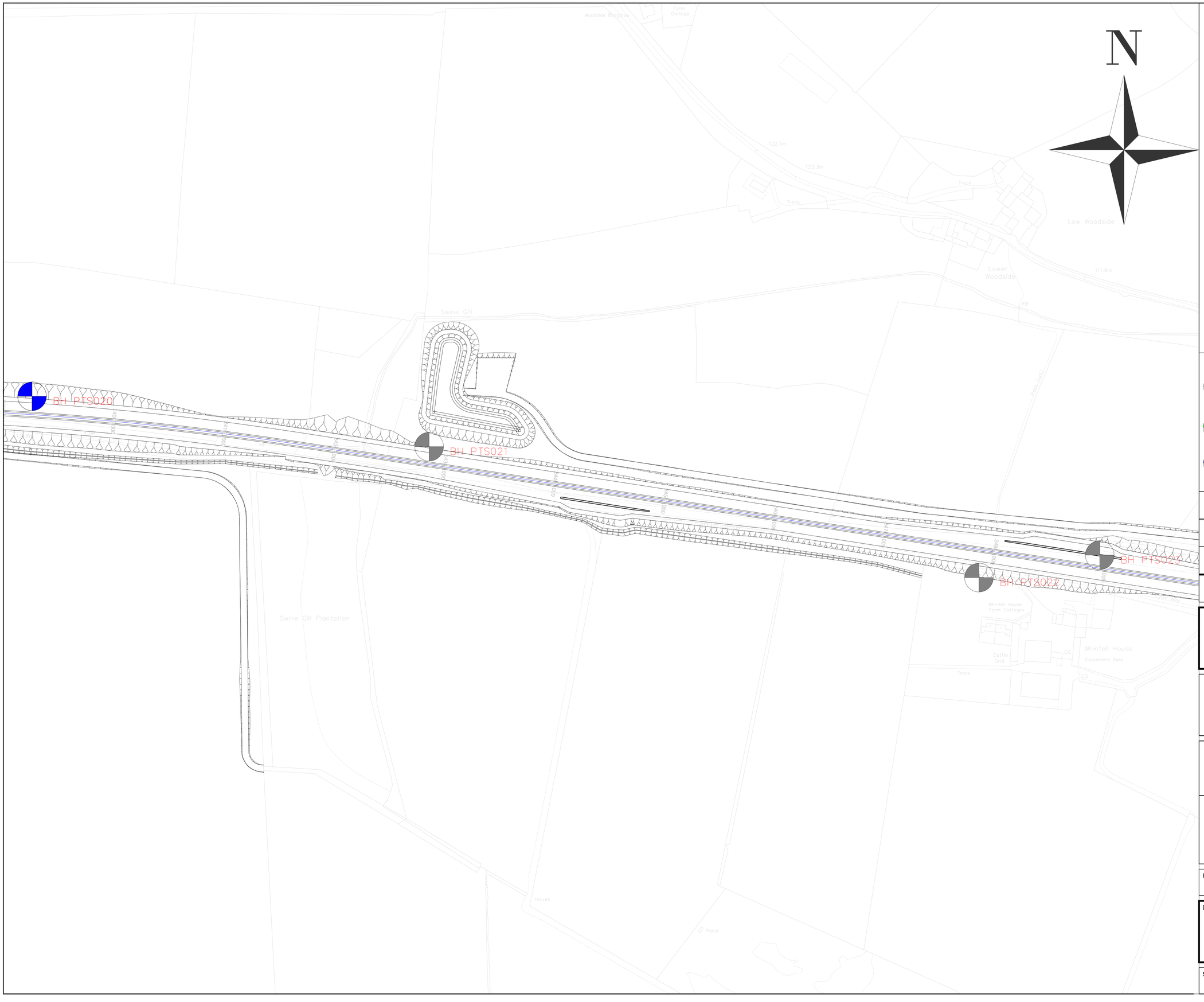
Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Groundwater Sheet 5 of 6

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume			
HE565627 -	AMY -	HGT -			
S03		-DR-	CE-	000115	
Location		Type	Role	Number	

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01



BH Boreholes

BH Boreholes with Installations

BH Groundwater Samples

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	---	---	---	---	---	---
P01						
	MHAR	MHAR	JMOR	GMCG	---	
	16/12/21	16/12/21	16/12/21	05/01/22	---	
Revision	Revision details					
	Created	Checked	Reviewed	Approved	Authorised	
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	

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Project Name
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Drawing Title
Package B
Center Parcs
Geo-Environmental GIR Drawings
Groundwater Sheet 6 of 6

Project Ref. No.	Stage	Scale : As Shown @ A1
---	PCF3	Dimensions : M

Drawing Number

Project	Originator	Volume		
HE565627 -	AMY -	HGT -		
S03		-DR-	CE-	000116
Location		Type	Role	Number

Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

B Geotechnical Charts

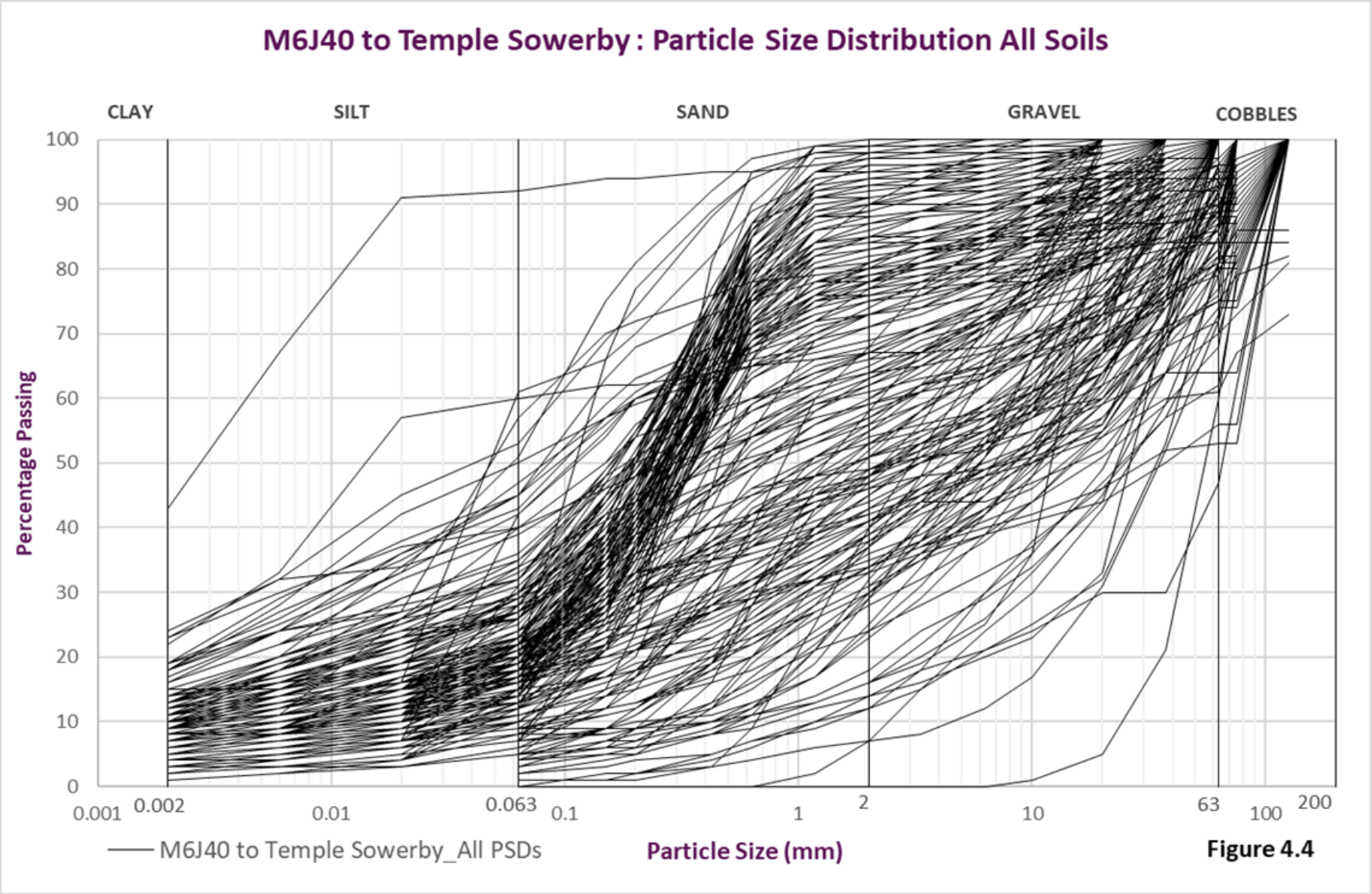

M6J40 to Temple Sowerby : Particle Size Distribution All Soils
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
Particle Size (mm)
M6J40 to Temple Sowerby_All PSDs

Figure 4.4

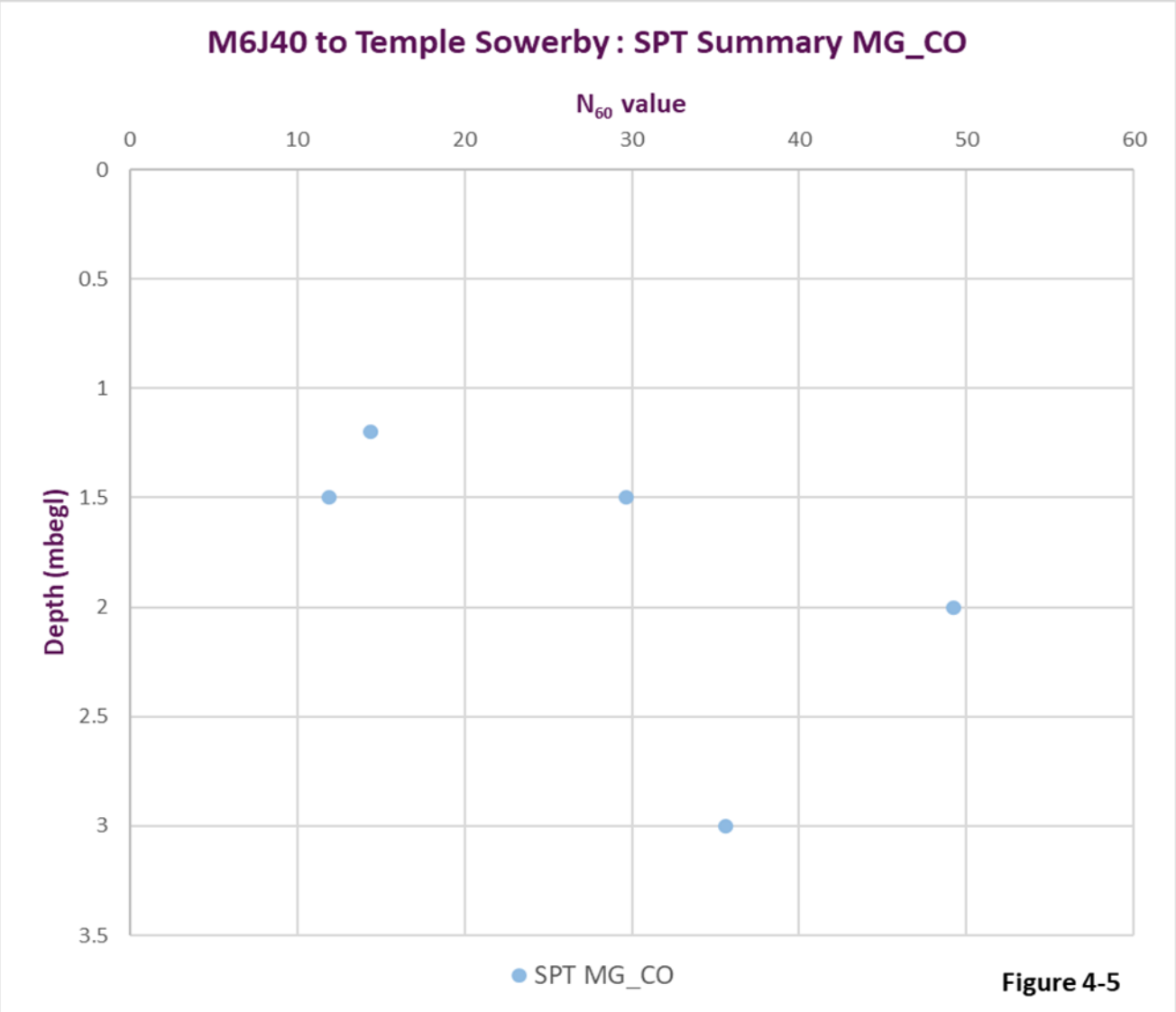

M6J40 to Temple Sowerby : SPT Summary MG_CO
N60 value
0
10
20
30
40
50
60
Depth (mbegl)
0
0.5
1
1.5
2
2.5
3
3.5
SPT MG_CO

Figure 4-5

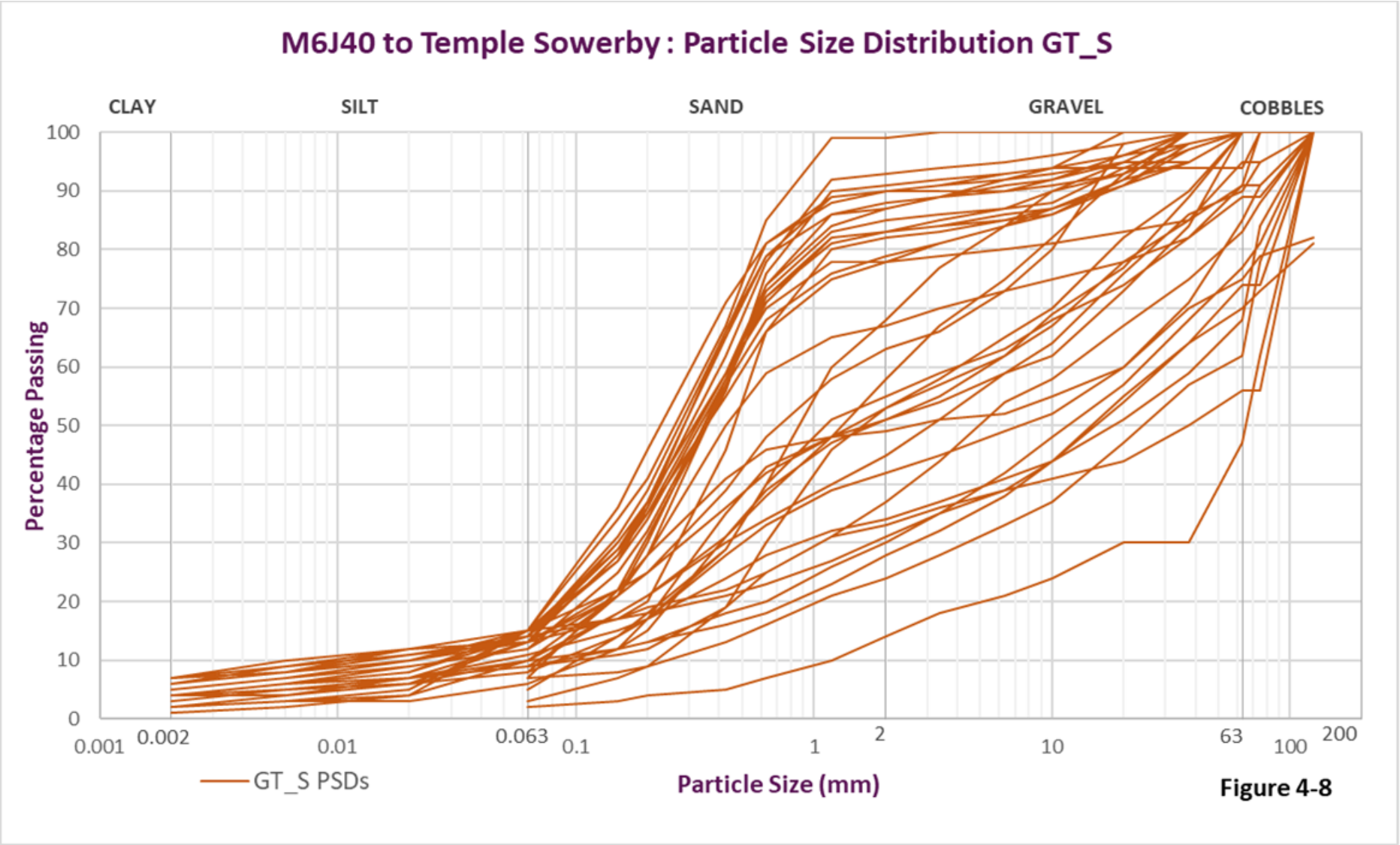

M6J40 to Temple Sowerby : Particle Size Distribution GT_S
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
GT_S PSDs
Particle Size (mm)

Figure 4-8

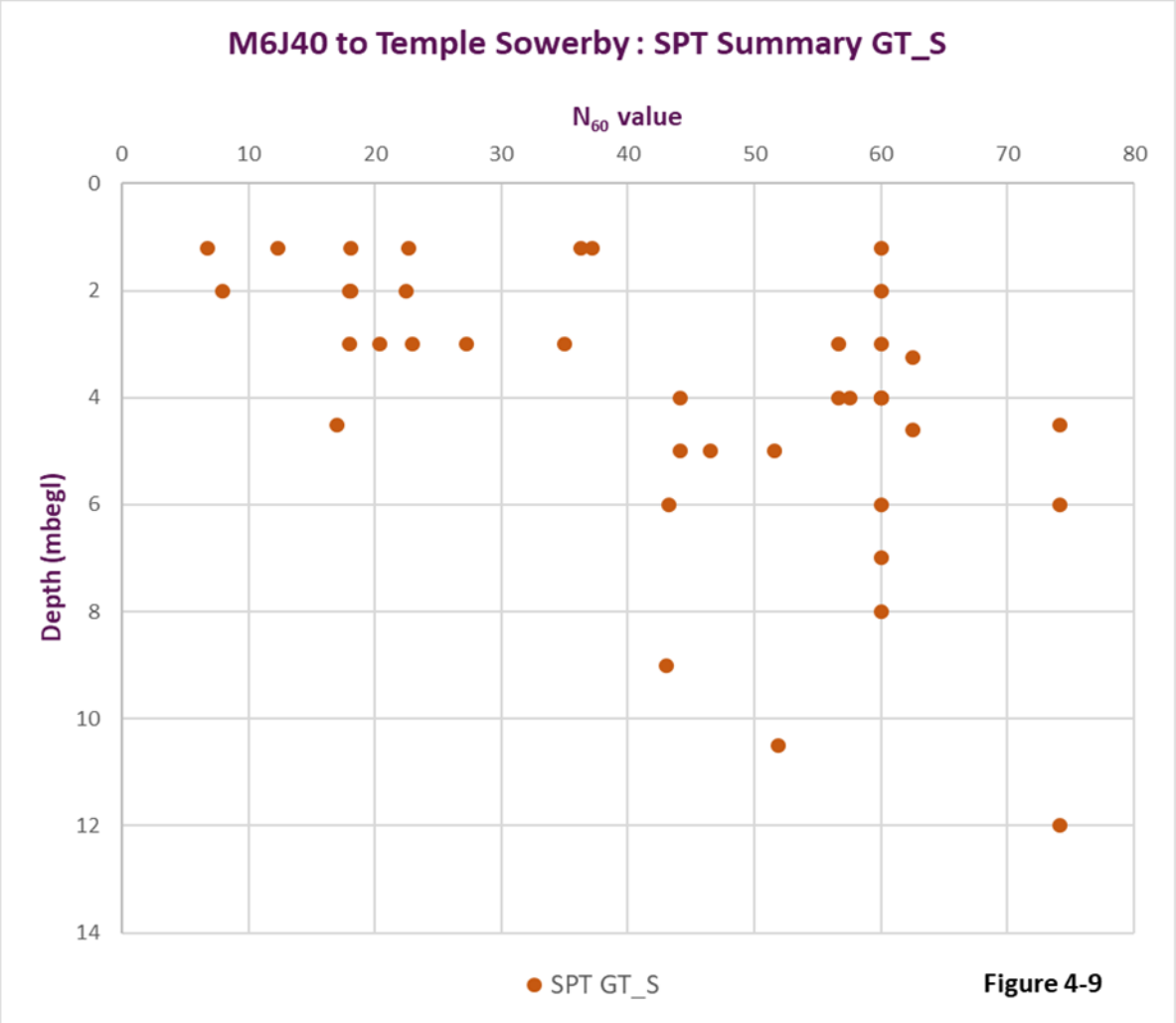

M6J40 to Temple Sowerby : SPT Summary GT_S
N60 value
0
10
20
30
40
50
60
70
80
Depth (mbegl)
0
2
4
6
8
10
12
14
SPT GT_S

Figure 4-9

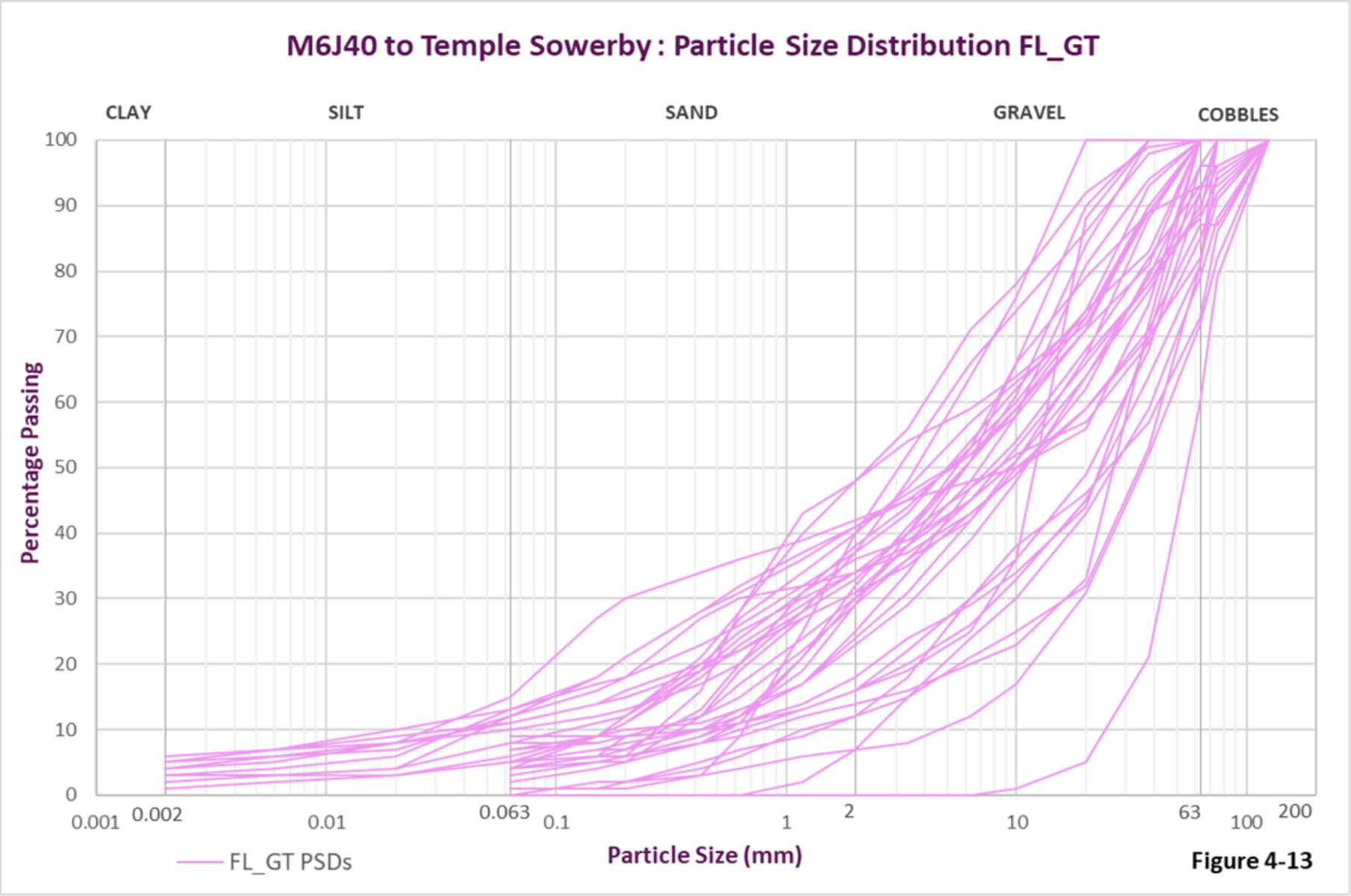

M6J40 to Temple Sowerby : Particle Size Distribution FL_GT
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
Particle Size (mm)
FL_GT PSDs

Figure 4-13

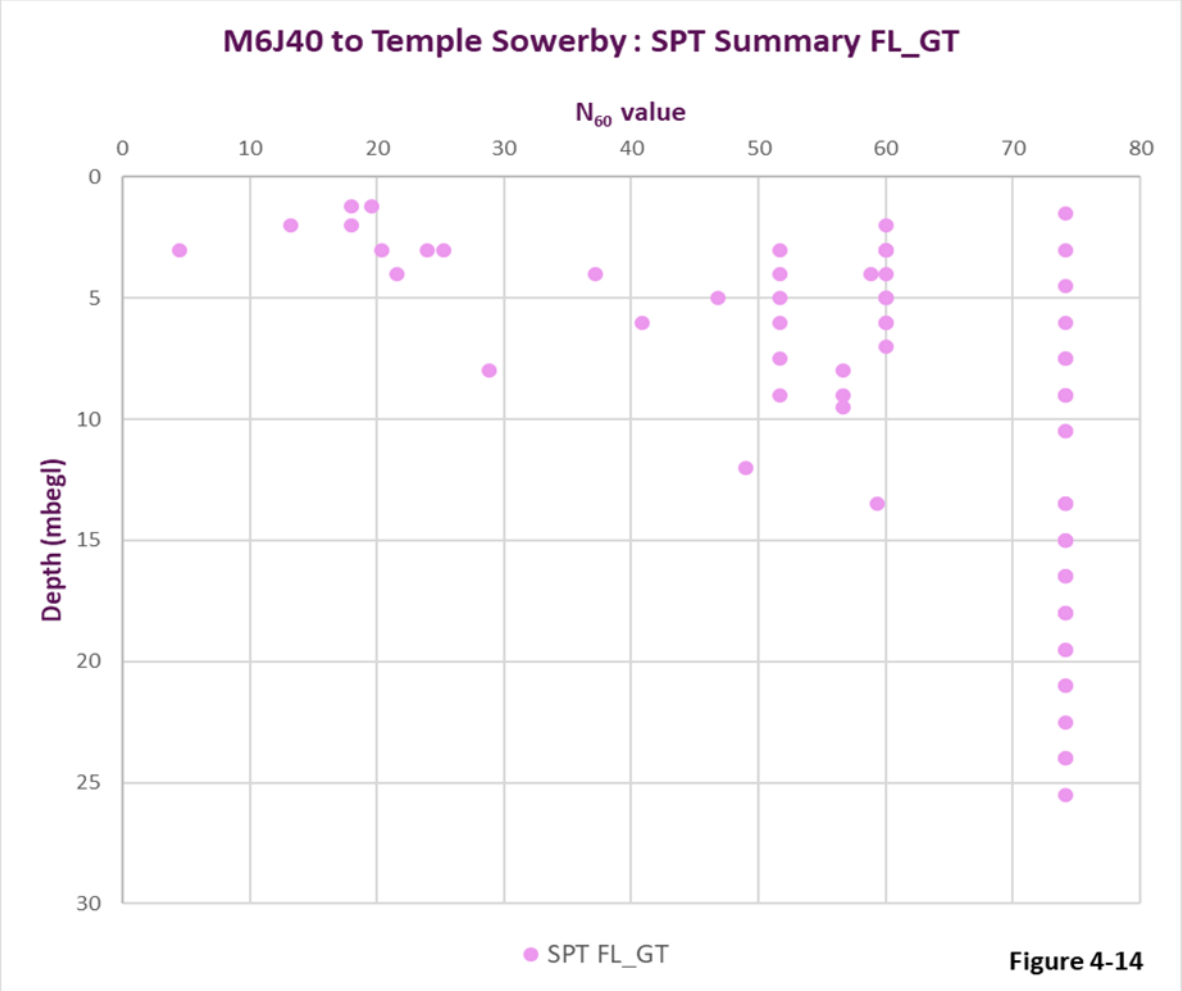

M6J40 to Temple Sowerby : SPT Summary FL_GT
N60 value
0
10
20
30
40
50
60
70
80
Depth (mbegl)
0
5
10
15
20
25
30
SPT FL_GT

Figure 4-14

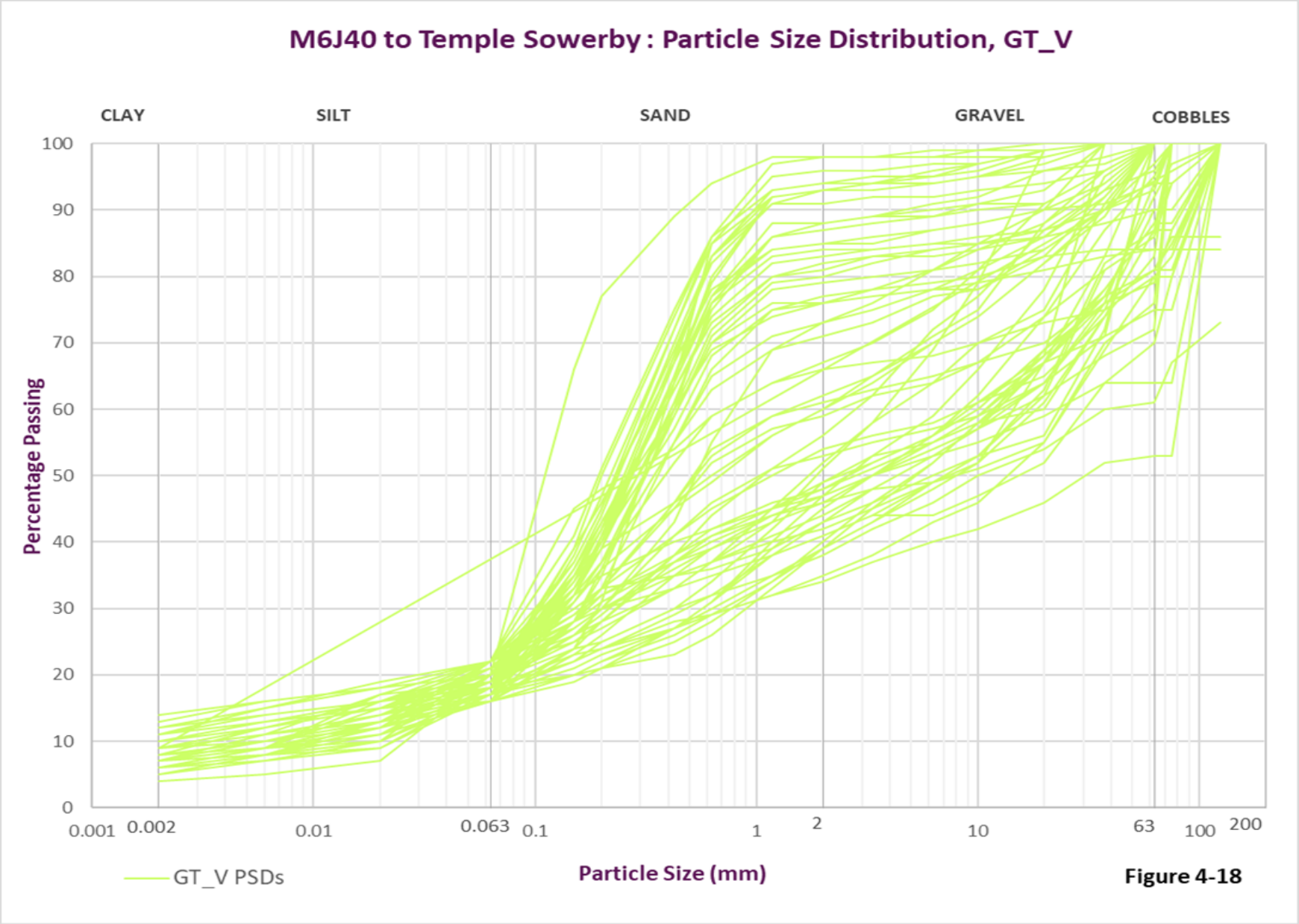

M6J40 to Temple Sowerby : Particle Size Distribution, GT_V
CLAY
SILT
SAND
GRAVEL
COBBLES
100
90
80
70
60
50
40
30
20
10
0
Percentage Passing
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
Particle Size (mm)
GT_V PSDs

Figure 4-18

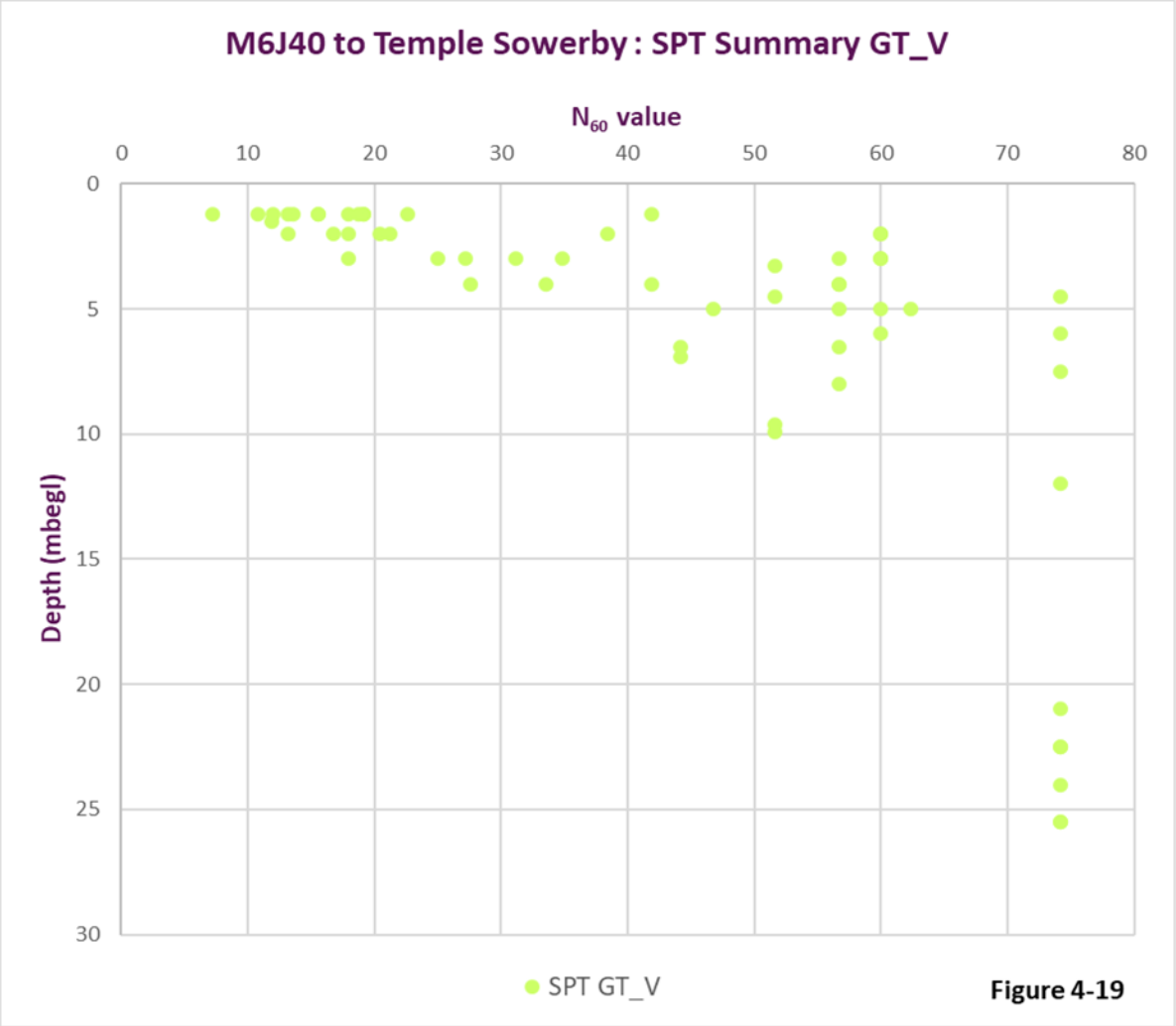

M6J40 to Temple Sowerby : SPT Summary GT_V
N60 value
0
10
20
30
40
50
60
70
80
Depth (mbegl)
0
5
10
15
20
25
30
SPT GT_V

Figure 4-19

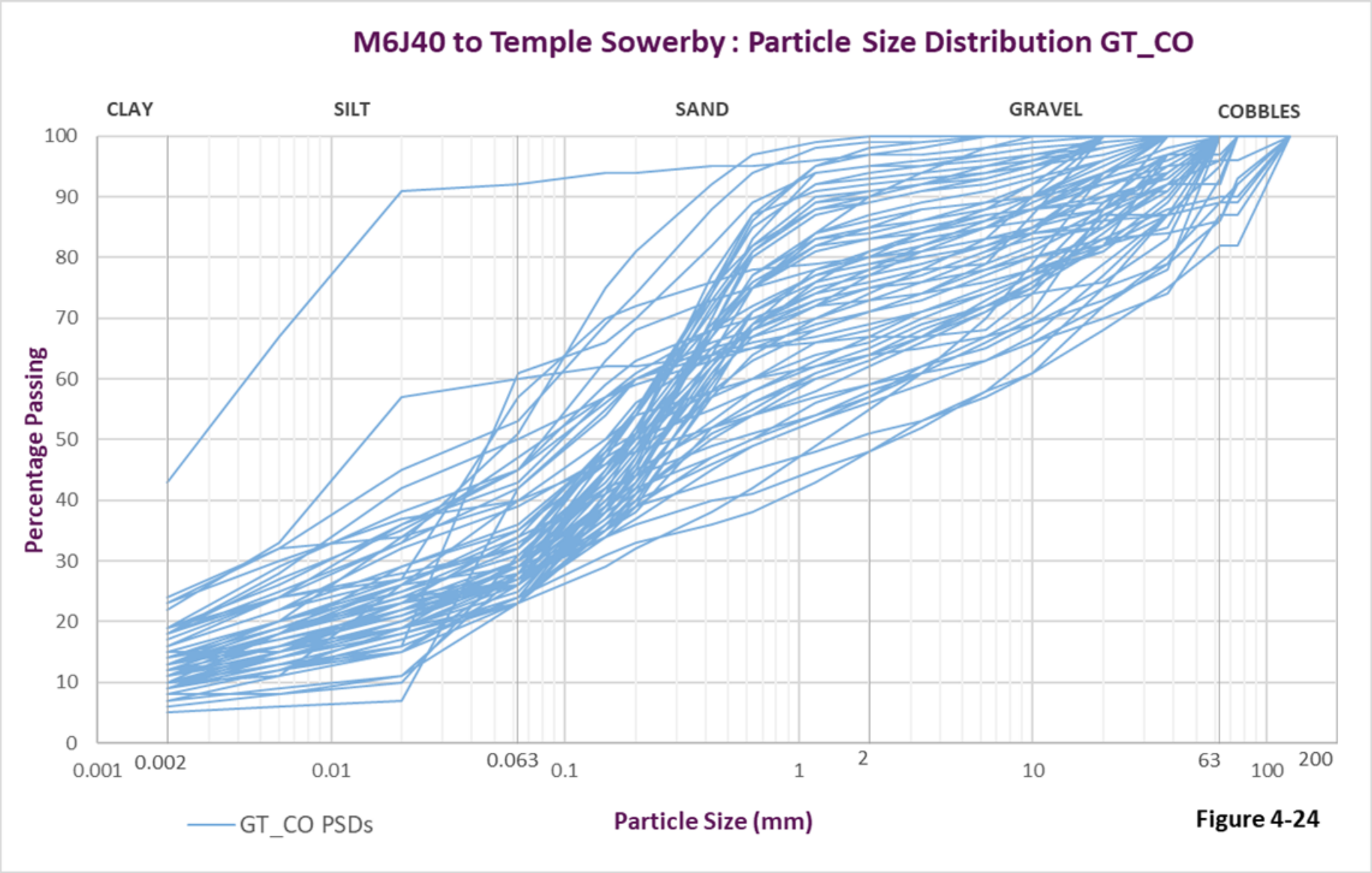

M6J40 to Temple Sowerby : Particle Size Distribution GT_CO
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
GT_CO PSDs
Particle Size (mm)

Figure 4-24

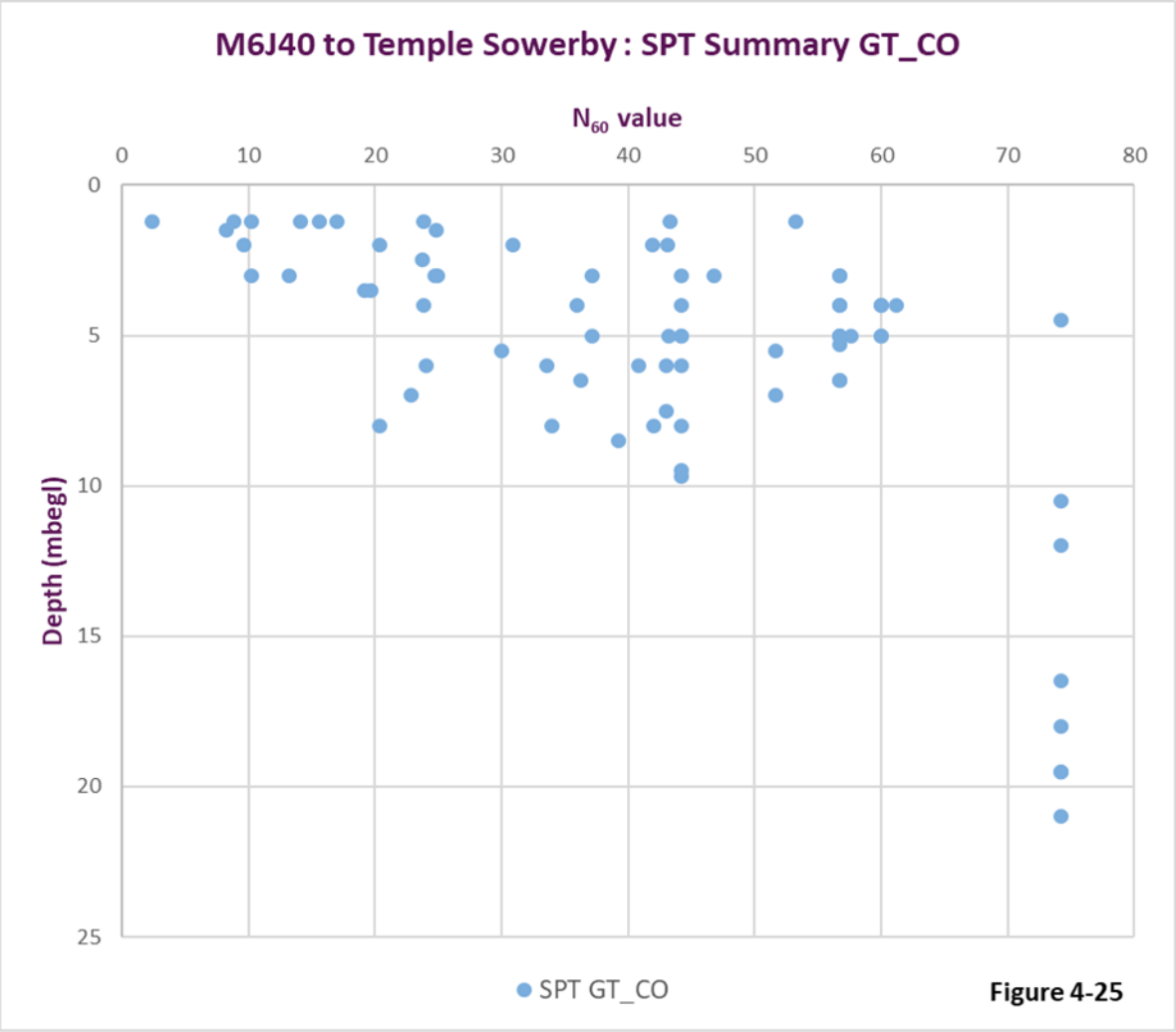

M6J40 to Temple Sowerby : SPT Summary GT_CO
N60 value
0
10
20
30
40
50
60
70
80
Depth (mbegl)
0
5
10
15
20
25
SPT GT_CO

Figure 4-25

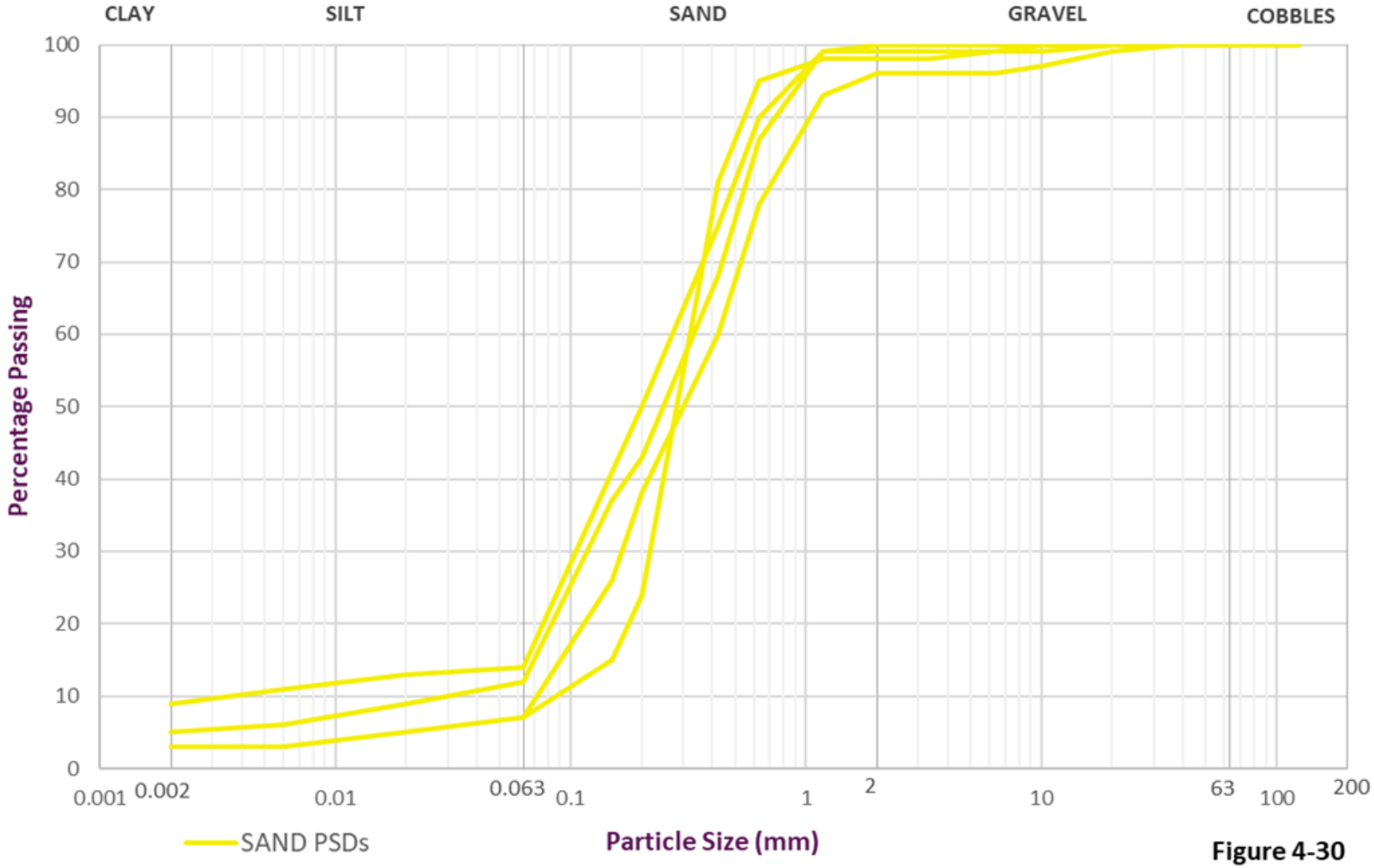

M6J40 to Temple Sowerby : Particle Size Distribution, SAND
CLAY
SILT
SAND
GRAVEL
COBBLES
Percentage Passing
100
90
80
70
60
50
40
30
20
10
0
0.001
0.002
0.01
0.063
0.1
1
2
10
63
100
200
SAND PSDs
Particle Size (mm)

Figure 4-30

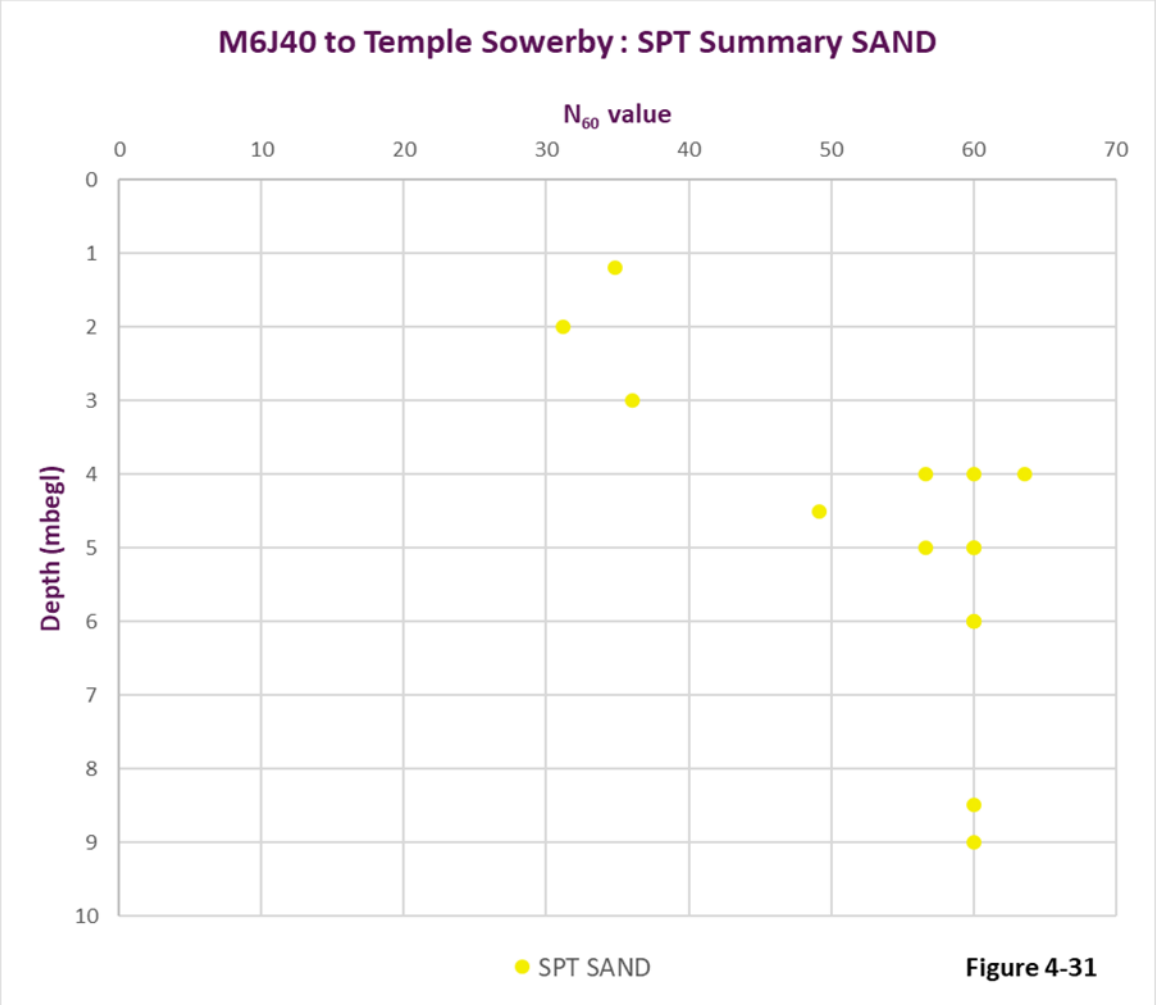
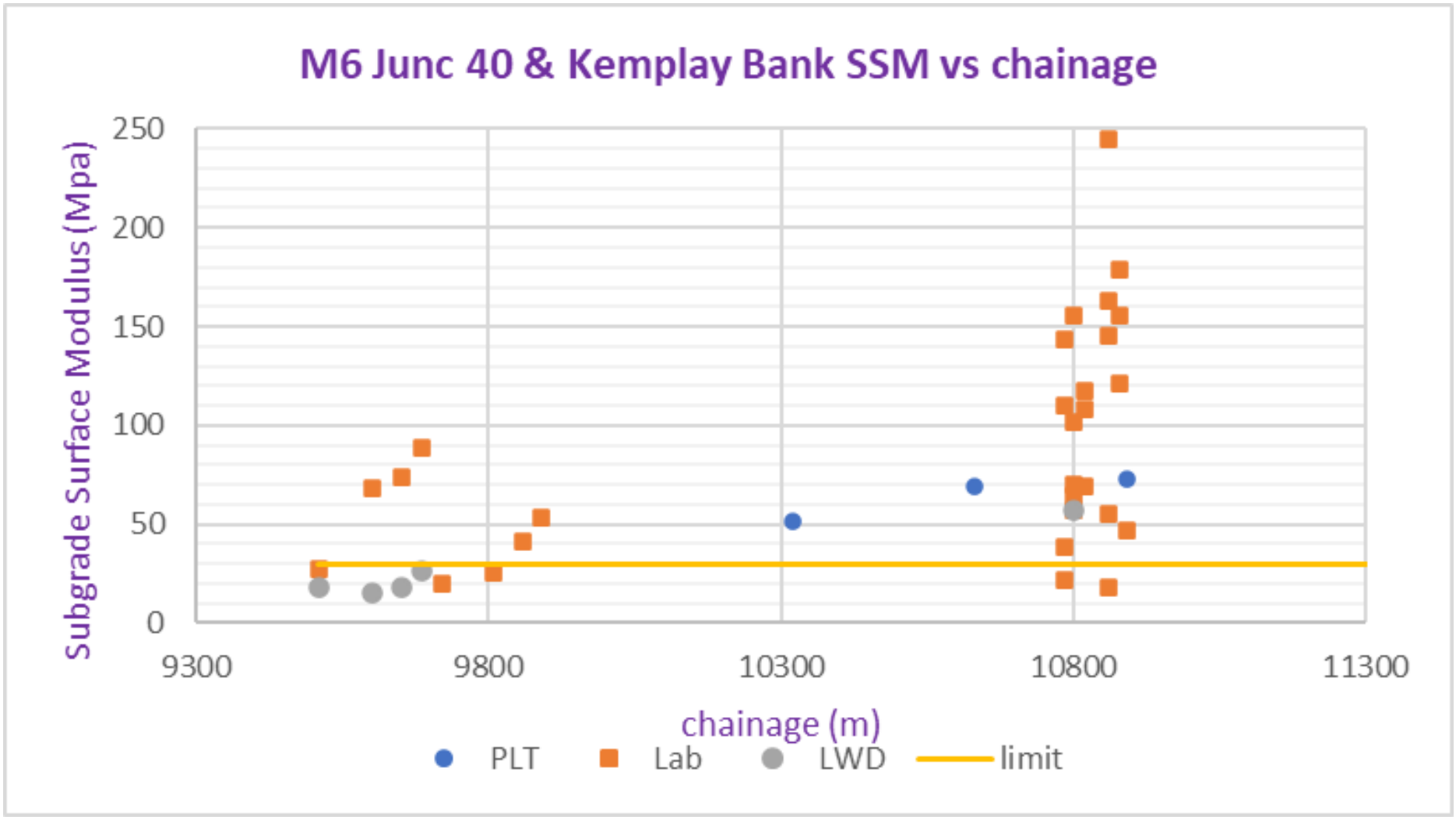
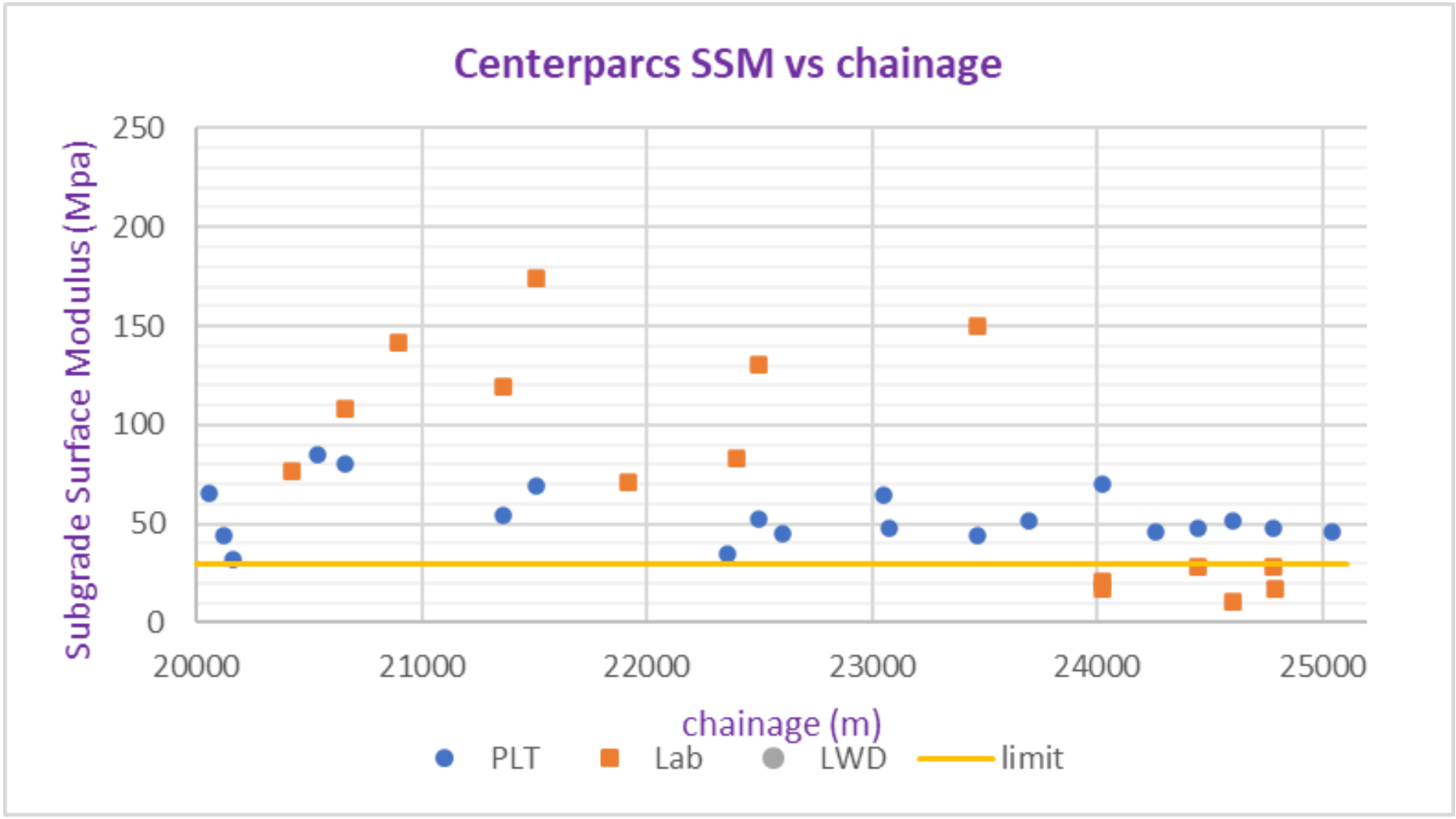

M6J40 to Temple Sowerby : SPT Summary SAND
N60 value
0
10
20
30
40
50
60
70
Depth (mbegl)
0
1
2
3
4
5
6
7
8
9
10
SPT SAND

Figure 4-31


M6 Junc 40 & Kemplay Bank SSM vs chainage
Subgrade Surface Modulus (Mpa)
250
200
150
100
50
0
9300
9800
10300
10800
11300
chainage (m)
PLT
Lab
LWD
limit


Centerparcs SSM vs chainage
Subgrade Surface Modulus (Mpa)
250
200
150
100
50
0
20000
21000
22000
23000
24000
25000
chainage (m)
PLT
Lab
LWD
limit

C Geo – Environmental

C.1 Risk / Waste Assessment Methodologies & GACs

Subject **Human Health Risk Assessment – Methodology**

Date 10 December 2021 Job No/Ref HE565627

The screening approach adopted by the A66 NTP Integrated Project Team is consistent with the "Tier 2 Generic Quantitative Risk Assessment" (GQRA) approach as detailed in the Land Contamination Risk Management (Environment Agency, 2020) framework guidance for the investigation of potentially contaminated land.

Potential risks to human health associated with soils encountered during the ground investigation have been assessed by screening the results of chemical testing against relevant Generic Assessment Criteria (GAC).

The screening approach identifies if there are potentially unacceptable risks to human receptors from exposure to soil contaminants, and whether there is a need for additional site-specific risk assessment or to undertake remedial action to mitigate risks should exceedances be identified.

GACs represent trigger values that may indicate a "Significant Possibility of Significant Harm" (SPOSH) to human health if contaminants exceed the level noted. Where soil concentration values are below the GACs and where the land use scenario selected is representative of, or conservative for the site being investigated, it can be assumed it is unlikely SPOSH exists, and remedial action would not be required to render a site fit for purpose.

When a GAC is exceeded it is not necessarily a sign the land is contaminated to an extent that the site is unsuitable for its current or intended use and requires remediation, however more consideration should be given to determine if it truly reflects a risk under a more site-specific land use. Further assessment may comprise Detailed Quantitative Risk Assessment (DQRA) which removes many of the generic (and therefore conservative) assumptions inherent in a GAC.

Generic Assessment Criteria (GAC) are for the most part (with the exception of cyanide) protective of chronic (i.e. long term, low dose) exposure rather than the effects of acute (i.e. short term, high dose) exposure. In general, GACs which are protective of chronic exposure are orders of magnitude lower than GACs which are protective of acute exposure.

Cyanide, however, is toxic by acute (oral) exposure and the cyanide GAC is protective of the acute exposure route.

Soil Samples have been screened against Generic Assessment Criteria (GAC) selected from the following strict hierarchy:

- Category 4 Screening Levels (C4SLs) as coordinated by CL:AIRE on behalf of the Department for Environment, Food and Rural Affairs (DEFRA, 2014);
- LQM/CIEH Suitable 4 Use Levels (S4UL) (Land Quality Management, 2009) where published C4SLs are not available; or
- Atkins ATRISKsoil Soil Screening Values (SSVs) (Atkins, 2017).

The adopted assessment criteria have been developed under the UK approach to risk assessment and are fully compliant with parameters as specified in the Environment Agency's series of guidance documents. GACs have been developed for a number of 'standard' land uses.

We recognise Paragraph 10 of NG 601 [1] states

> *"For general fills, the limiting values for harm to human health should normally be based on the 'commercial/industrial' end use category of guideline values, as there is a very low risk of exposure to the public from any contaminants in the fill. For landscaping fills, considerations of phytotoxicity will be important. Where slopes are to be returned to agricultural use, the limiting values should be based on the 'allotments' end use. The appropriate category should be decided for each section or sub-section of the scheme".*

Following a review of the standard land use scenarios underpinning these models, we are of the opinion the "Public Open Space – Park" (POS_{Park}) land use, is considered to be a more appropriate and suitably precautionary land use scenario for the development under consideration (i.e. major highway scheme with associated earthworks, structures, road verge landscaping and ancillary features such as SUDs ponds etc) with regards to selection of critical receptor and behavioural exposure parameters.

However, for the reasons summarised below, we consider the POS_{Park} generic land use to be a suitably protective land use for risk assessment purposes scheme wide.

The Commercial land use scenario is based around a conceptual site model (CSM) that considers:

- a female adult critical receptor of working age (age class 17 - i.e. 16 - 65yr old);
- working in a principally indoor office setting with an exposure duration / frequency of 8.3 hrs per day for 230 days per year; and
- which includes *"indoor and outdoor dermal"* exposure pathway and crucially, the *"inhalation of indoor dust and indoor vapour*s" exposure pathways, which are a significant component for volatile organic contaminants.

The POS_{Park} land use is based around the following CSM:

- a female child critical receptor (age class 1 - 6 - i.e. 0 - 6yr old);
- in an outdoor park setting with an exposure duration / frequency of 2 hrs per day for 170 days per year;
- and exposure pathways are limited to *"direct soil and dust ingestion"*; *"outdoor dermal"* exposure, and *"inhalation of outdoor dust and outdoor vapours"*

[1] Manual Of Contract Documents For Highway Works Volume 2 Notes For Guidance On The Specification For Highway Works - Amendment – February 2016 - https://www.standardsforhighways.co.uk/ha/standards/mchw/vol2/pdfs/MCHW%20NG600.pdf

We consider the exposure duration and frequency of anyone present within the bounds of the highways scheme to be considerably less than the modelled duration and frequency of the standard land uses (either commercial or POS(Park)), which add an additional level of conservatism to the assessment. We also consider the use of the “Allotments” land use to be overly precautionary in relation to a proposed roadside verge land use in an agricultural land setting, as the main risk driver being the stringent “Allotments” land use GAC is the behavioural characteristics of allotment owners, whose diet is modelled as consuming a large quantity of homegrown produce from a particular (small) plot of soil. This is not the case in general agricultural land, whereby the general population is unlikely to consume a measurable quantity of food sourced from a particular plot of land, and therefore the likelihood of scheme derived soil contamination making an appreciable component of a person’s diet is considered to be negligible.

Organic contamination can be bound to organic matter within soils, which reduces the mobility and availability of organic contaminants to the environment. The more organic matter present, the less mobile organic contaminants are.

A low Soil Organic Matter (SOM) value of 1% is considered to be conservative for the purposes of the assessment and has been selected when selecting GACs.

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A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP B - Appx C1 - Human Health GAC

Kemplay Bank

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Substance	C4SL (mg/kg)	CLAIRE C4SL	CIEH / LQM S4UL (mg/kg)	Atkins AtRisk 2017 (mg/kg)	Saturation limit	Source	Selected GAC (mg/kg)	Saturation Limits	Source
Metals									
Arsenic	170		170	168			170		C4SL
Antimony				3090			3090		Atkins Atrisk
Barium				5770			5770		Atkins Atrisk
Beryllium			63	2.19			63		LQM S4UL
Boron			46000				46000		LQM S4UL
Cadmium	880		532	882			880		C4SL
Chromium III			33000	83500			33000		LQM S4UL
Chromium V	250		220	251			250		C4SL
Copper			44000	45200			44000		LQM S4UL
Lead	1300			1340			1300		C4SL
Elemental mercury			30	61.2	25.8	LQM S4UL	30	25.8	LQM S4UL
Inorganic mercury			240	1110			240		LQM S4UL
Methylmercury			68	94.3	66.4	Atkins	68		LQM S4UL
Molybdenum				2880			2880		Atkins Atrisk
Nickel			3400	804			3400		LQM S4UL
Selenium			1800	2550			1800		LQM S4UL
Vanadium			5000	1550			5000		LQM S4UL
Zinc			170000	201000			170000		LQM S4UL
BTEX									
Benzene	230		90	139			90		LQM S4UL
Toluene			87000	69900	869	LQM S4UL	87000	869	LQM S4UL
Ethylbenzene			17000	21400	518	LQM S4UL	17000	518	LQM S4UL
O-xylene			17000	9560	478	LQM S4UL	17000	478	LQM S4UL
M-xylene			17000	9270	625	LQM S4UL	17000	625	LQM S4UL
P-xylene			17000	9100	576	LQM S4UL	17000	576	LQM S4UL
Methyl tert-butyl ether				70800	17427	Atkins	70800	17427	Atkins Atrisk
Petroleum hydrocarbon fractions									
Aliphatic EC 5-6			95000	109000	304	LQM S4UL	95000	304	LQM S4UL
Aliphatic EC 6-8			150000	163000	144	LQM S4UL	150000	144	LQM S4UL
Aliphatic EC 8-10			14000	9720	78	LQM S4UL	14000	78	LQM S4UL
Aliphatic EC 10-12			21000	17700	48	LQM S4UL	21000	48	LQM S4UL
Aliphatic EC 12-16			25000	23800	24	LQM S4UL	25000	24	LQM S4UL
Aliphatic EC 16-35			450000	864000			450000		LQM S4UL
Aliphatic EC 35-44			450000				450000		LQM S4UL
Aromatic EC 5-7			76000	139	1220	LQM S4UL	76000	1220	LQM S4UL
Aromatic EC 7-8			87000	69900	869	LQM S4UL	87000	869	LQM S4UL
Aromatic EC 8-10			7200	5140	613	LQM S4UL	7200	613	LQM S4UL
Aromatic EC 10-12			9200	8260	364	LQM S4UL	9200	364	LQM S4UL
Aromatic EC 12-16			10000	10600			10000		LQM S4UL
Aromatic EC 16-21			7600	7870			7600		LQM S4UL
Aromatic EC 21-35			7800	7870			7800		LQM S4UL
Aromatic EC 35-44			7800				7800		LQM S4UL
Aliphatic and aromatic 44-70			7800				7800		LQM S4UL
Polycyclic aromatic hydrocarbons									
Acenaphthene			29000	28600			29000		LQM S4UL
Acenaphthylene			29000				29000		LQM S4UL
Anthracene			150000	150000			150000		LQM S4UL
Benz[a]anthracene			49				49		LQM S4UL
Benzo[a]pyrene	21		11	21.4			11		LQM S4UL
Benzo[b]fluoranthene			13				13		LQM S4UL
Benzo[ghi]perylene			1400				1400		LQM S4UL
Benzo[k]fluoranthene			370				370		LQM S4UL
Chrysene			93				93		LQM S4UL
Dibenz[ah]anthracene			1.1				1.1		LQM S4UL
Fluoranthene			6300	20200			6300		LQM S4UL
Fluorene			20000	19600			20000		LQM S4UL
Indeno[123-cd]pyrene			150				150		LQM S4UL
Naphthalene			1200	623	76.4	LQM S4UL	1200	76.4	LQM S4UL
Phenanthrene			6200				6200		LQM S4UL
Pyrene			15000	15100			15000		LQM S4UL
Coal tar (bap as surrogate marker)			4.4				4.4		LQM S4UL
Chloroalkanes and alkenes									
1,2-Dichloroethane			21	37.9			21		LQM S4UL
1,1,1-Trichloroethane			57000	34900	1425	LQM S4UL	57000	1425	LQM S4UL
1,1,2,2-Tetrachloroethane			1800	4640	2464	Atkins	1800		LQM S4UL
1,1,1,2-Tetrachloroethane			1500	3490	2823	Atkins	1500		LQM S4UL
1,1,1,2 Tetrachloroethene		1400	810	3060	424	C4SL	1400	424	CL:AIRE C4SL
Tetrachloromethane			190	915			190		LQM S4UL
Trichloroethene		41	70	11			41		CL:AIRE C4SL
Trichloromethane			2600	2090			2600		LQM S4UL
Chloroethane				82400	2437	Atkins	82400	2437	Atkins Atrisk
Chloroethene / Vinyl Chloride		18	4.8	3.68			18		CL:AIRE C4SL
1,1,2-Trichloroethane				766			766		Atkins Atrisk
1,1-Dichloroethane				11200	1620	Atkins	11200	1620	Atkins Atrisk
1,1-Dichloroethene				1950			1950		Atkins Atrisk
Chloromethane				73.8			73.8		Atkins Atrisk
Cis-1,2-dichloroethene				389			389		Atkins Atrisk
Dichloromethane				1430			1430		Atkins Atrisk
Trans-1,2-dichloroethene				918			918		Atkins Atrisk
Biphenyl				14900	34	Atkins	14900	34	Atkins Atrisk
Bis (2-ethylhexyl) phthalate				16600			16600		Atkins Atrisk
Bromobenzene				986	827	Atkins	986	827	Atkins Atrisk
Bromodichloromethane				33.9			33.9		Atkins Atrisk
Bromoform				2910	2480	Atkins	2910	2480	Atkins Atrisk
Butyl benzyl phthalate				257000			257000		Atkins Atrisk
Diethyl phthalate				85800	12.8	Atkins	85800	12.8	Atkins Atrisk
Di-n-butyl phthalate				2620			2620		Atkins Atrisk
Di-n-octyl phthalate				20000			20000		Atkins Atrisk
1,2,4-Trimethylbenzene				225			225		Atkins Atrisk
1,2-Dichloropropane				79.6			79.6		Atkins Atrisk
2,4-Dichloro-o-cresol				14200			14200		Atkins Atrisk
2,4-Dimethylphenol				8740	1327	Atkins	8740	1327	Atkins Atrisk
2,4-Dinitrotoluene				973			973		Atkins Atrisk
2,6-bis(1,1-dimethyl)-4-(1-methylpropyl)-phenol				576			576		Atkins Atrisk
2,6-Dinitrotoluene				489			489		Atkins Atrisk
2-Chloronaphthalene				659	112	Atkins	659	112	Atkins Atrisk
Styrene				5640	604	Atkins	5640	604	Atkins Atrisk
Propylbenzene				27500	399	Atkins	27500	399	Atkins Atrisk
Iso-propylbenzene				14800	387	Atkins	14800	387	Atkins Atrisk
Formadlehyde				218			218		Atkins Atrisk
Dibromochloromethane				231			231		Atkins Atrisk
Trichloromethylbenzene				0.199			0.199		Atkins Atrisk
Hexachloroethane				115	8.13	Atkins	115	8.13	Atkins Atrisk
Explosives									
2,4,6-Trinitrotoluene			260				260		LQM S4UL
RDX			49000		18.7	LQM S4UL	49000	18.7	LQM S4UL
HMX			23000		0.35	LQM S4UL	23000	0.35	LQM S4UL
Pesticides									
Aldrin			30				30		LQM S4UL
Dieldrin			30				30		LQM S4UL
Atrazine			2300				2300		LQM S4UL
Dichlorvos			26				26		LQM S4UL
alpha - Endosulfan			2400				2400		LQM S4UL
beta - Endosulfan			2400				2400		LQM S4UL
alpha - Hexachlorocyclohexane			47				47		LQM S4UL
beta - Hexachlorocyclohexane			15				15		LQM S4UL
gamma - Hexachlorocyclohexane			14				14		LQM S4UL
DDD				212			212		Atkins Atrisk
Dinoseb				45.4			45.4		Atkins Atrisk
Nicotine				173			173		Atkins Atrisk
Prochloraz				2300			2300		Atkins Atrisk
Chlorobenzenes									
Chlorobenzene			1300	13200	675	LQM S4UL	1300	675	LQM S4UL
1,2-Dichlorobenzene			24000		571	LQM S4UL	24000	571	LQM S4UL
1,3-Dichlorobenzene			390				390		LQM S4UL
1,4-Dichlorobenzene			36000		224	LQM S4UL	36000	224	LQM S4UL
1,2,3-Trichlorobenzene			770		134	LQM S4UL	770	134	LQM S4UL
1,2,4-Trichlorobenzene			1700		318	LQM S4UL	1700	318	LQM S4UL
1,3,5-Trichlorobenzene			380		36.7	LQM S4UL	380	36.7	LQM S4UL
1,2,3,4-Tetrachlorobenzene			1500		122	LQM S4UL	1500	122	LQM S4UL
1,2,3,5-Tetrachlorobenzene			110		39	LQM S4UL	110	39	LQM S4UL
1,2,4,5-Tetrachlorobenzene			25				25		LQM S4UL
Pentachlorobenzene			190				190		LQM S4UL
Hexachlorobenzene			30				30		LQM S4UL
Phenol and chlorophenols									
Phenol			760	685			760		LQM S4UL
Chlorophenols			1100				1100		LQM S4UL
Pentachlorophenol			110				110		LQM S4UL
2-Methylphenol				48700			48700		Atkins Atrisk
3-Methylphenol				48700			48700		Atkins Atrisk
4-Methylphenol				48100			48100		Atkins Atrisk
Other									
Carbon disulphide			1300	1920			1300		LQM S4UL
Hexachlorobutadiene			48				48		LQM S4UL
Cyanide (free)				34			34		Atkins Atrisk
Tributyl tin oxide				46.2			46.2		Atkins Atrisk
Other Organics									
Total PCDDs, PCDFs and dioxin-like PCBs				0.049			0.049		Atkins Atrisk

Subject **Controlled Waters Risk Assessment – Methodology**

Date 10 December 2021 Job No/Ref HE565627

A tiered approach has been developed to assess leachate, groundwater and surface water samples recovered from the ground investigation.

An assessment of the risk to controlled waters (groundwater resource and surface waters) has been undertaken in line with the Groundwater Protection Guidance (Environment Agency, 2017). The document outlines basic concepts and principles of management, monitoring and risk assessment for groundwater with respect to protecting the quality and quantity of groundwater in accordance with the Water Framework Directive (2000/60/EC).

Due to the linear nature of the scheme, the spatial distribution of the sample locations and the limited amount of groundwater, leachate and surface water analytical data, it is not appropriate to infer correlations between sampling locations and each sample has been assessed as a discrete data point.

Water samples recovered as part of this ground investigation comprise a baseline survey of groundwater and surface waters prior to construction activities, and therefore substances failing Tier 1 (T1) or Tier 2 (T2 DWS or T2 EQS) assessment will be reported factually for information only.

Tier 1 Assessment (T1)

Groundwater, leachate and surface water samples have been subject to an initial conservative Tier 1 (T1) controlled waters assessment. This has utilised the lower of the UK Drinking Water Standards (DWS) (UK Statutory Instruments, 2016) or Environmental Quality Standards (EQS) (Scottish Environment Protection Agency (SEPA), 2020), following the process outlined below:

- Use the lowest of DWS or EQS
- Hierarchy of formal DWS as follows:
    - UK/EU DWS
    - WHO DWS
    - USEPA DWS
- Hierarchy of EQS as follows:
    - Use MAC (Maximum Allowable Concentration)
    - If no MAC use AA (Annual Average)
    - If no DWS or EQS is available use the LOD (Limit of Detection)

However there are a number of substances for which there is no relevant Water Quality Standard (WQS). For these substances without a formal WQS, a substance specific decision has been made to either adopt the LoD as a conservative WQS, or to not assign a WQS and report the data for information only.

Tier 1 (T1) Water Quality Standards (WQS) are summarised in APPX X "Tier 1 WQS Screen".

Locations where exceedances of T1 WQS have been identified are reviewed to determine whether it is possible to exclude the DWS or EQS receptors from the T1 assessment (e.g. due to sample type / proximity to surface water etc). If it is possible to exclude the DWS or EQS receptor, the T1 exceedances can progress to a more relevant T2 (DWS) or T2 (EQS) assessment.

T1 exceedances identified at locations where DWS and EQS are both considered relevant are unable to progress to a T2 CWRA.

Tier 2 Assessment (T2)

The Tier 2 Assessment recognises the importance of assessing the sample against the relevant WQS at the correct assessment point. (e.g. a groundwater sample, distal to a surface water receptor would be assessed against Drinking Water Standards (DWS) only to protect groundwater drinking water resources, and a surface water sample would be assessed against EQS only).

The assessment point (AP) is also important.

- For Drinking Water protection, the AP is at the abstraction point / consumer tap;
- For Groundwater resource protection, the AP is 50m downgradient of the source; and
- For Surface Water protection, the AP is in the Surface Water, after Dilution.

Tier 2 Groundwater Resource Protection Assessment (T2 DWS)

For substances that exceed the Tier 1 (T1) assessment at locations where only groundwater resource protection is considered relevant, a Tier 2 Groundwater Resource Protection Assessment (T2 DWS) has been undertaken with the following rules applied:

- Hierarchy of formal DWS as follows:
  - UK/EU DWS
  - WHO DWS
  - USEPA DWS
- For Hazardous Substances:
  - use formal DWS if available.
  - If no formal DWS available, Use MRL / LoD.

- For Non Hazardous Substances,
    - use formal DWS if available.
    - if no formal DWS available, do not evaluate / no assessment is required.

Tier 2 Groundwater Resource Protection Assessment (T2 DWS) water quality standards are summarised in APPX C1 “Tier 2 DWS Screen”.

Tier 2 Surface Water Assessment (T2 EQS)

For substances that exceed the Tier 1 (T1) assessment at locations where only surface water protection is considered relevant, a Tier 2 Surface Water Assessment (T2 EQS) has been undertaken with the following rules applied:

- if EQS are available, use EQS
    - Hierarchy of EQS as follows:
        - use MAC (Maximum Allowable Concentration)
        - If no MAC, use AA (Annual Average)
        - For Copper, Manganese and Zinc, consider using bioavailability corrections (M-BAT) tool;
- if no EQS is available,
    - consider developing Predicted No-Effect concentration (PNEC) or
    - alternatively, consider MRL / LOD

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Geo-Env - WP B - Appx C1 - Water Quality Standards

Kemplay Bank

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Tier 1 Screen

Notes

1 T1 - use Lowest of DWS or EQS.
2 T1 - If no DWS or EQS is avaiable, use LOD
3 T1 - Hierarchy of Formal DWS are 1 - UK/EU DWS, 2 - WHO DWS. 3 - USEPA DWS
4 TI - Hierarchy of EQS - use MAC. If no MAC, use AA

Data sources		
UK DWS	The Water Supply (Water Quality) Regulations 2016	https://www.legislation.gov.uk/uksi/2016/614/contents
	The Surface Waters (Abstraction for Drinking	https://www.legislation.gov.uk/uksi/1996/3001/contents/made
EU DWS	Directive (EU) 2020/2184 - quality of water	https://eur-lex.europa.eu/ell/dir/2020/2184/oj
WHO	Guidelines for Drinking-water Quality FOURTH	https://www.who.int/publications/i/item/9789241549950
	Petroleum Products in Drinking-water - Background document for development of WHO Guidelines for	https://www.who.int/water_sanitation_health/dwq/chemicals/petroleumproducts_1add_june2008.pdf
USEPA	USEPA National Primary Drinking Water Regulations	https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
JAGDAG	Groundwater hazardous substances standards	http://wfduk.org/resources/groundwater-hazardous-substances-standards
EQS	SEPA Supporting Guidance (WAT-SG-53) Environmental Quality Standards and Standards for	https://www.sepa.org.uk/media/152957/wat-sg-53-environmental-quality-standards-for-discharges-to-surface-waters.pdf

Substance	Units	LOD ug/l)	Haz / Non Haz?	Groundwater Assessment Criteria				Surface Water Assessment Criteria	Alternative (u/l)	Source	Proposed Tier 1 WQS (ug/l)	Source	Comment
				UK DWS	EU DWS	WHO DWS	USEPA DWS	Freshwater MAC EQS (ug/l)					
Misc													
pH (w)	pH	0.01	-	>6.5 x <9.5	>6.5 x <9.5	-	-	-	not required		>6.5 x <9.5	UK DWS	
Electrical conductivity @ 20degC (w)	µs/cm	10	-	2500	2500	-	-	-	not required		2500	UK DWS	
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	5	-	-	-	-	-	-	none proposed		No screening value		
Hardness Total	mg/l Ca CO3	1	-	-	-	-	-	-	none proposed		No screening value		**Informative only** Class 1: < 40 mg CaCO3/l Class 2: 40 to < 50 mg CaCO3/l Class 3: 50 to < 100 mg CaCO3/l Class 4: 100 to < 200 mg CaCO3/l Class 5: ≥ 200 mg CaCO3/l
COD (settled)	mg/l	20	-	-	-	-	-	-	none proposed		No screening value		
BOD (settled, 5 day)	mg/l	2	-	-	-	-	-	-	none proposed		No screening value		
Total Suspended Solids (w)	mg/l	10	-	-	-	-	-	-	none proposed		No screening value		
Ammoniacal nitrogen as N (w)	mg/l	0.02	-	0.5	0.5	-	-	0.04	not required		0.04	EQS	
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	0.000036	-	-	-	-	-		none proposed		No screening value		
Chloride (w)	mg/l	1	Not Determined	250	250	250	-	250	not required		250	UK DWS	
Nitrite (w)	mg/l	0.1	Not Determined	0.5	0.5	3	1	-	not required		0.5	UK DWS	
Nitrate (w)	mg/l	0.1	Not Determined	50	50	50	10	-	not required		50	UK DWS	
Sulphate (w)	mg/l	1	Not Determined	250	250	500	-	400	not required		250	UK DWS	
Sulphide (w)	mg/l	0.1	Not Determined	-	-	-	-	-	none proposed		No screening value		
DOC (w)	mg/l	0.2	-	-	-	-	-	-	none proposed		No screening value		
Metals													
Arsenic (dissolved)	µg/l	1	Hazardous Substance	10	10	10	10	50	not required		10	UK DWS	
Boron (dissolved)	µg/l	10	Non Hazardous Pollutant	1000	1500	2400	-	2000	not required		1000	UK DWS	
Cadmium (dissolved)	µg/l	0.2	Non Hazardous Pollutant	5	5	3	5	≤0.45 (class 1) 0.45 (class 2) 0.6 (class 3) 0.9 (class 4) 1.5 class 5)	not required		0.45	EQS	Hardness dependant
Calcium (dissolved)	mg/l	1	Not Determined	-	-	-	-	-	none proposed		No screening value		
Copper (dissolved)	µg/l	1	Non Hazardous Pollutant	2000	2000	2000	1300	1*	not required		1	EQS	*Consider Bioavailbility (M-BAT tool)
Chromium (dissolved)	µg/l	1	Hazardous Substance	50	50	50	-	-	not required		50	UK DWS	
Chromium (hexavalent) (w)	mg/l	0.01	Hazardous Substance	50	50	50	100	3.4	not required		3.4	EQS	
Chromium (trivalent) (w)	mg/l	0.01	Hazardous Substance	-	-	-	-	32	none proposed		No screening value		
Lead (dissolved)	µg/l	1	Hazardous Substance	10	10	10	15	14	not required		10	UK DWS	
Manganese (dissolved)	µg/l	1	Not Determined	50	-	100	-	123*	not required		50	UK DWS	*Consider Bioavailbility (M-BAT tool)
Magnesium (dissolved)	mg/l	1	Not Determined	-	-	-	-	-	none proposed		No screening value		
Mercury (dissolved)	µg/l	0.1	Hazardous Substance	1	1	6	2	0.07	not required		0.07	EQS	
Molybdenum (dissolved)	µg/l	0.5	Non Hazardous Pollutant	-	-	-	-	-	0.5	LOD	0.5	LOD	
Nickel (dissolved)	µg/l	1	Non Hazardous Pollutant	20	20	70	-	34	not required		20	UK DWS	
Potassium (dissolved)	mg/l	1.2	Not Determined	-	-	-	-	-	none proposed		No screening value		
Selenium (dissolved)	µg/l	1	Non Hazardous Pollutant	10	20	40	50	-	not required		10	UK DWS	
Sodium (dissolved)	mg/l	1	Non Hazardous Pollutant	200	200	50	-	-	not required		200000	UK DWS	
Vanadium (dissolved)	µg/l	1	Not Determined	-	-	-	-	20	not required		20	EQS	
Zinc (dissolved)	µg/l	1	Non Hazardous Pollutant	-	-	-	-	10.9*	not required		10.9	EQS	*Consider Bioavailbility (M-BAT tool)
PAH 16MS (w)													
Acenaphthene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	-	0.01	LOD	0.01	LOD	
Acenaphthylene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Anthracene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	0.1	not required		0.1	EQS	
Benzo(a)anthracene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Benzo(a)pyrene (w)	µg/l	0.01	Hazardous Substance	0.01	0.01	0.7	0.2	0.27	not required		0.01	UK DWS	
Benzo(b)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	0.017	none proposed (See Total PAH)		none proposed (See Total PAH)		
Benzo(ghi)perylene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	8.20E-04	none proposed (See Total PAH)		none proposed (See Total PAH)		
Benzo(k)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	0.017	none proposed (See Total PAH)		none proposed (See Total PAH)		
Fluoranthene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Dibenzo(ah)anthracene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Chrysene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	-	0.01	LOD	0.01	LOD	
Fluorene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Indeno(123-cd)pyrene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Naphthalene (w)	µg/l	0.01	Non Hazardous Pollutant	-	-	-	-	130	not required		130	EQS	
Phenanthrene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Pyrene (w)	µg/l	0.01	Not Determined	-	-	-	-	-	0.01	LOD	0.01	LOD	
Total PAH (sum of 4 PAH*)	µg/l	0.01	-	0.1	0.1	-	-	-	not required		0.1	UK DWS	
TPH CWG (w)													
Ali >C5-C6 (w)	µg/l	1	Not Determined	-	-	15000	-	-	not required		15000	WHO DWS	
Ali >C6-C8 (w)	µg/l	1	Not Determined	-	-	15000	-	-	not required		15000	WHO DWS	
Ali >C8-C10 (w)	µg/l	5	Not Determined	-	-	300	-	-	not required		300	WHO DWS	
Ali >C10-C12 (w)	µg/l	5	Not Determined	-	-	300	-	-	not required		300	WHO DWS	
Ali >C12-C16 (w)	µg/l	5	Not Determined	-	-	300	-	-	not required		300	WHO DWS	
Ali >C16-C21 (w)	µg/l	5	Not Determined	-	-	-	-	-	none proposed		No screening value		
Ali >C21-C35 (w)	µg/l	5	Not Determined	-	-	-	-	-	none proposed		No screening value		
Total Aliphatics (w)	µg/l	5	Not Determined	-	-	-	-	-	none proposed		No screening value		
Aro >C5-C7 (w)	µg/l	1	Not Determined	1	1	10	5	50	not required		1	UK DWS	
Aro >C7-C8 (w)	µg/l	1	Not Determined	-	-	700	-	-	not required		700	WHO DWS	
Aro >C8-C10 (w)	µg/l	5	Not Determined	-	-	300	-	-	not required		300	WHO DWS	
Aro >C10-C12 (w)	µg/l	5	Not Determined	-	-	90	-	-	not required		90	WHO DWS	
Aro >C12-C16 (w)	µg/l	5	Not Determined	-	-	90	-	-	not required		90	WHO DWS	
Aro >C16-C21 (w)	µg/l	5	Not Determined	-	-	90	-	-	not required		90	WHO DWS	
Aro >C21-C35 (w)	µg/l	10	Not Determined	-	-	90	-	-	not required		90	WHO DWS	
Total Aromatics (w)	µg/l	10	Not Determined	-	-	-	-	-	none proposed		No screening value		
TPH (Ali & Aro >C5-C35) (w)	µg/l	10	Not Determined	-	-	-	-	-	none proposed		No screening value		
BTEX													
BTEX - Benzene (w)	µg/l	1	Hazardous Substance	1	1	0.7	5	50	not required		1	UK DWS	
BTEX - Toluene (w)	µg/l	1	Hazardous Substance	-	-	700	700	74	not required		74	EQS	
BTEX - Ethyl Benzene (w)	µg/l	1	Hazardous Substance	-	-	300	1000	-	not required		300	WHO DWS	
BTEX - m & p Xylene (w)	µg/l	1	Hazardous Substance	-	-	500	10000	30	not required		30	EQS	
BTEX - o Xylene (w)	µg/l	1	Hazardous Substance	-	-	500	10000	30	not required		30	EQS	
MTBE (w)	µg/l	1	Non Hazardous Pollutant	-	-	-	-	-	none proposed		No screening value		

Tier 2 DWS Screen

Notes

1. undertake T1 Screen
2. If substances fail T1 Screen, Decide whether it is appropriate to only assess against groundwater resource protection.
3. if so, for the substances that fail the T1 screen undertake T2 DWS only
4. Hierarchy of Formal DWS are 1 - UK/EU DWS, 2 - WHO DWS. 3 - USEPA DWS
5. Determine whether substance are either "Hazardous" or"Non-Hazardous" in relation to WFD / GWDD (see JAGDAG list)
6. For Haz Substances, use formal DWS if avaialbe. If no formal DWS available, Use MRL / LOD
7. For Non Haz Substances, use formal DWS if available if no formal DWS available, **do not evaluate** / assess

Data sources		
UK DWS	The Water Supply (Water Quality) Regulations 2016	https://www.legislation.gov.uk/uksi/2016/614/contents
	The Surface Waters (Abstraction for Drinking Water)	https://www.legislation.gov.uk/uksi/1996/3001/contents/made
EU DWS	Directive (EU) 2020/2184 - quality of water intended for human consumption	https://eur-lex.europa.eu/eli/dir/2020/2184/oj
WHO	Guidelines for Drinking-water Quality FOURTH EDITION	https://www.who.int/publications/i/item/9789241549950
	Petroleum Products in Drinking-water - Background document for development of WHO Guidelines for Drinking-water Quality	https://www.who.int/water_sanitation_health/dwq/chemicals/petroleumproducts_1add_june2008.pdf
USEPA	USEPA National Primary Drinking Water Regulations	https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
JAGDAG	Groundwater hazardous substances standards	http://wfduk.org/resources/groundwater-hazardous-substances-standards
EQS	SEPA Supporting Guidance (WAT-SG-53) Environmental Quality Standards and Standards for Discharges to Surface Waters (v7.1 -	https://www.sepa.org.uk/media/152957/wat-sg-53-environmental-quality-standards-for-discharges-to-surface waters.pdf

Substance	Units	LOD ug/l)	Haz / Non Haz?	Groundwater Assessment Criteria				Alternative (u/l)	Source	Proposed Tier 1 WQS (ug/l)	Source	Comment
				UK DWS	EU DWS	WHO DWS	USEPA DWS					
Misc												
pH (w)	pH	0.01	-	>6.5 x <9.5	>6.5 x <9.5	-	-	not required		>6.5 x <9.5	UK DWS	
Electrical conductivity @ 20degC (w)	µs/cm	10	-	2500	2500	-	-	not required		2500	UK DWS	
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	5	-	-	-	-	-	none proposed		No screening value		
Hardness Total	mg/l Ca CO3	1	-	-	-	-	-	none proposed		No screening value		
COD (settled)	mg/l	20	-	-	-	-	-	none proposed		No screening value		
BOD (settled, 5 day)	mg/l	2	-	-	-	-	-	none proposed		No screening value		
Total Suspended Solids (w)	mg/l	10	-	-	-	-	-	none proposed		No screening value		
Ammoniacal nitrogen as N (w)	mg/l	0.02	-	0.5	0.5	-	-	not required		0.5	UK DWS	
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	0.000036	-	-	-	-	-	none proposed		No screening value		
Chloride (w)	mg/l	1	Not Determined	250	250	250	-	not required		250	UK DWS	
Nitrite (w)	mg/l	0.1	Not Determined	0.5	0.5	3	1	not required		500	UK DWS	
Nitrate (w)	mg/l	0.1	Not Determined	50	50	50	10	not required		50	UK DWS	
Sulphate (w)	mg/l	1	Not Determined	250	250	500	-	not required		250	UK DWS	
Sulphide (w)	mg/l	0.1	Not Determined	-	-	-	-	none proposed		No screening value		
DOC (w)	mg/l	0.2	-	-	-	-	-	none proposed		No screening value		
Metals												
Arsenic (dissolved)	µg/l	1	Hazardous Substance	10	10	10	10	not required		10	UK DWS	
Boron (dissolved)	µg/l	10	Non Hazardous Pollutant	1000	1500	2400	-	not required		1000	UK DWS	
Cadmium (dissolved)	µg/l	0.2	Non Hazardous Pollutant	5	5	3	5	not required		5	UK DWS	
Calcium (dissolved)	mg/l	1	Not Determined	-	-	-	-	none proposed		No screening value		
Copper (dissolved)	µg/l	1	Non Hazardous Pollutant	2000	2000	2000	1300	not required		2000	UK DWS	
Chromium (dissolved)	µg/l	1	Hazardous Substance	50	50	50	-	not required		50	UK DWS	
Chromium (hexavalent) (w)	mg/l	0.01	Hazardous Substance	50	50	50	100	not required		50	UK DWS	
Chromium (trivalent) (w)	mg/l	0.01	Hazardous Substance	-	-	-	-	not required		50	UK DWS	
Lead (dissolved)	µg/l	1	Hazardous Substance	10	10	10	15	not required		10	UK DWS	
Manganese (dissolved)	µg/l	1	Not Determined	50	-	100	-	not required		50	UK DWS	
Magnesium (dissolved)	mg/l	1	Not Determined	-	-	-	-	none proposed		No screening value		
Mercury (dissolved)	µg/l	0.1	Hazardous Substance	1	1	6	2	not required		1	UK DWS	
Molybdenum (dissolved)	µg/l	0.5	Non Hazardous Pollutant	-	-	-	-	none proposed		No screening value		
Nickel (dissolved)	µg/l	1	Non Hazardous Pollutant	20	20	70	-	not required		20	UK DWS	
Potassium (dissolved)	mg/l	1.2	Not Determined	-	-	-	-	none proposed		No screening value		
Selenium (dissolved)	µg/l	1	Non Hazardous Pollutant	10	20	40	50	not required		10	UK DWS	
Sodium (dissolved)	mg/l	1	Non Hazardous Pollutant	200	200	200	-	not required		200000	UK DWS	
Vanadium (dissolved)	µg/l	1	Not Determined	-	-	-	-	none proposed		No screening value		
Zinc (dissolved)	µg/l	1	Non Hazardous Pollutant	-	-	-	-	none proposed		No screening value		
PAH 16MS (w)												
Acenaphthene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	0.01	LOD	0.01	LOD	
Acenaphthylene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Anthracene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	0.01	LOD	0.01	LOD	
Benzo(a)anthracene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Benzo(a)pyrene (w)	µg/l	0.01	Hazardous Substance	0.01	0.01	0.7	0.2	not required		0.01	UK DWS	
Benzo(b)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Benzo(ghi)perylene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Benzo(k)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Fluoranthene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Dibenzo(ah)anthracene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Chrysene (w)	µg/l	0.01	Hazardous Substance	-	-	-	-	0.01	LOD	0.01	LOD	
Fluorene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Indeno(123-cd)pyrene (w)*	µg/l	0.01	Hazardous Substance	-	-	-	-	none proposed (See Total PAH)		none proposed (See Total PAH)		
Naphthalene (w)	µg/l	0.01	Non Hazardous Pollutant	-	-	-	-	none proposed		No screening value		
Phenanthrene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Pyrene (w)	µg/l	0.01	Not Determined	-	-	-	-	none proposed		No screening value		
Total PAH (sum of 4 PAH*)	µg/l	0.01	-	0.1	0.1	-	-	not required		0.1	UK DWS	
TPH CWG (w)												
Ali >C5-C6 (w)	µg/l	1	Not Determined	-	-	15000	-	not required		15000	WHO DWS	
Ali >C6-C8 (w)	µg/l	1	Not Determined	-	-	15000	-	not required		15000	WHO DWS	
Ali >C8-C10 (w)	µg/l	5	Not Determined	-	-	300	-	not required		300	WHO DWS	
Ali >C10-C12 (w)	µg/l	5	Not Determined	-	-	300	-	not required		300	WHO DWS	
Ali >C12-C16 (w)	µg/l	5	Not Determined	-	-	300	-	not required		300	WHO DWS	
Ali >C16-C21 (w)	µg/l	5	Not Determined	-	-	-	-	none proposed		No screening value		
Ali >C21-C35 (w)	µg/l	5	Not Determined	-	-	-	-	none proposed		No screening value		
Total Aliphatics (w)	µg/l	5	Not Determined	-	-	-	-	none proposed		No screening value		
Aro >C5-C7 (w)	µg/l	1	Not Determined	1	1	10	5	not required		1	UK DWS	
Aro >C7-C8 (w)	µg/l	1	Not Determined	-	-	700	-	not required		700	WHO DWS	
Aro >C8-C10 (w)	µg/l	5	Not Determined	-	-	300	-	not required		300	WHO DWS	
Aro >C10-C12 (w)	µg/l	5	Not Determined	-	-	90	-	not required		90	WHO DWS	
Aro >C12-C16 (w)	µg/l	5	Not Determined	-	-	90	-	not required		90	WHO DWS	
Aro >C16-C21 (w)	µg/l	5	Not Determined	-	-	90	-	not required		90	WHO DWS	
Aro >C21-C35 (w)	µg/l	10	Not Determined	-	-	90	-	not required		90	WHO DWS	
Total Aromatics (w)	µg/l	10	Not Determined	-	-	-	-	none proposed		No screening value		
TPH (Ali & Aro >C5-C35) (w)	µg/l	10	Not Determined	-	-	-	-	none proposed		No screening value		
BTEX												
BTEX - Benzene (w)	µg/l	1	Hazardous Substance	1	1	0.7	5	not required		1	UK DWS	
BTEX - Toluene (w)	µg/l	1	Hazardous Substance	-	-	700	700	not required		700	WHO DWS	
BTEX - Ethyl Benzene (w)	µg/l	1	Hazardous Substance	-	-	300	1000	not required		300	WHO DWS	
BTEX - m & p Xylene (w)	µg/l	1	Hazardous Substance	-	-	500	10000	not required		500	WHO DWS	
BTEX - o Xylene (w)	µg/l	1	Hazardous Substance	-	-	500	10000	not required		500	WHO DWS	
MTBE (w)	µg/l	1	Non Hazardous Pollutant	-	-	-	-	none proposed		No screening value		

Tier 2 EQS Screen

Notes

1 undertake T1 Screen

2 If substances fail T1 Screen, Decide whether it is appropriate to only assess against Surface Water protection (e.g. Surface water sample?)

3 however remember EQS assessment point (AP) is in Surface water **AFTER** dilution

4 if EQS are aviaible, use EQS

5 Hierarchy of EQS - use MAC. If no MAC, use AA

6 For copper/ Manganese and Zinc, cinsider Bioavailabiluty (M-BAT)

7 if no EQS, consider developing Predicted No-Effect concentration (PNEC)

8 alternatively, consider MRL / LOD

Data sources		
UK DWS	The Water Supply (Water Quality) Regulations 2016	https://www.legislation.gov.uk/uksi/2016/614/contents
	The Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996	https://www.legislation.gov.uk/uksi/1996/3001/contents/made
EU DWS	Directive (EU) 2020/2184 - quality of water intended for human consumption	https://eur-lex.europa.eu/eli/dir/2020/2184/oj
WHO	Guidelines for Drinking-water Quality FOURTH EDITION Incorporating the first Addendum	https://www.who.int/publications/i/item/9789241549950
	Petroleum Products in Drinking-water - Background document for development of WHO Guidelines for Drinking-	https://www.who.int/water_sanitation_health/dwq/chemicals/petroleumproducts_1add_june2008.pdf
USEPA	USEPA National Primary Drinking Water Regulations	https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations
JAGDAG	Groundwater hazardous substances standards	http://wfduk.org/resources/groundwater-hazardous-substances-standards
EQS	SEPA Supporting Guidance (WAT-SG-53) Environmental Quality Standards and Standards for Discharges to Surface Waters (v7.1 - April 2000)	https://www.sepa.org.uk/media/152957/wat-sg-53-environmental-quality-standards-for-discharges-to-surface-waters.pdf

* Consider M-BAT bioavailability

Substance	Units	LOD ug/l)	Haz / Non Haz?	Surface Water Assessment Criteria Freshwater **MAC** EQS (ug/l)	Alternative (ug/l)	Source	Proposed Tier 1 WQS (ug/l)	Source	Comment
Misc									
pH (w)	pH	0.01	-	-	not required		>6.5 x <9.5	UK DWS	
Electrical conductivity @ 20degC (w)	µs/cm	10	-	-	not required		2500	UK DWS	
Alkalinity (total) (w) Colorimetry	mg/l Ca CO3	5	-	-	none proposed		No screening value		
Hardness Total	mg/l Ca CO3	1	-	-	none proposed		No screening value		**Informative only** Class 1: < 40 mg CaCO3/l Class 2: 40 to < 50 mg CaCO3/l Class 3: 50 to < 100 mg CaCO3/l Class 4: 100 to < 200 mg CaCO3/l Class 5: > 200 mg CaCO3/l
COD (settled)	mg/l	20	-	-	none proposed		No screening value		
BOD (settled, 5 day)	mg/l	2	-	-	none proposed		No screening value		
Total Suspended Solids (w)	mg/l	10	-	-	none proposed		No screening value		
Ammoniacal nitrogen as N (w)	mg/l	0.02	-	-	none proposed		No screening value		
Ammonia (Free Unionised) as N (w) at 25degC	mg/l	0.000036	-	0.04	not required		0.04	EQS	
Chloride (w)	mg/l	1	Not Determined	250000	not required		250000	EQS	
Nitrite (w)	mg/l	0.1	Not Determined	-	none proposed		No screening value		
Nitrate (w)	mg/l	0.1	Not Determined	-	none proposed		No screening value		
Sulphate (w)	mg/l	1	Not Determined	400000	none proposed		No screening value		
Sulphide (w)	mg/l	0.1	Not Determined	-	none proposed		No screening value		
DOC (w)	mg/l	0.2	-	-	none proposed		No screening value		
Metals									
Arsenic (dissolved)	µg/l	1	Hazardous Substance	50	not required		50	EQS	
Boron (dissolved)	µg/l	10	Non Hazardous Pollutant	2000	not required		2000	EQS	
Cadmium (dissolved)	µg/l	0.2	Non Hazardous Pollutant	≤0.45 (class 1) 0.45 (class 2) 0.6 (class 3) 0.9 (class 4) 1.5 class 5)	not required		0.45	EQS	Hardness dependant
Calcium (dissolved)	mg/l	1	Not Determined	-	none proposed		No screening value		
Copper (dissolved)	µg/l	1	Non Hazardous Pollutant	1*	not required		1	EQS	*Consider Bioavailbility (M-BAT tool)
Chromium (dissolved)	µg/l	1	Hazardous Substance	-	none proposed		No screening value		
Chromium (hexavalent) (w)	mg/l	0.01	Hazardous Substance	3.4	not required		3.4	EQS	
Chromium (trivalent) (w)	mg/l	0.01	Hazardous Substance	32	not required		32	EQS	
Lead (dissolved)	µg/l	1	Hazardous Substance	14	not required		14	EQS	
Manganese (dissolved)	µg/l	1	Not Determined	123*	not required		123	EQS	*Consider Bioavailbility (M-BAT tool)
Magnesium (dissolved)	mg/l	1	Not Determined	-	none proposed		No screening value		
Mercury (dissolved)	µg/l	0.1	Hazardous Substance	0.07	not required		0.07	EQS	
Molybdenum (dissolved)	µg/l	0.5	Non Hazardous Pollutant	-	0.5	LOD	0.5	LOD	
Nickel (dissolved)	µg/l	1	Non Hazardous Pollutant	34	not required		34	EQS	
Potassium (dissolved)	mg/l	1.2	Not Determined	-	none proposed		No screening value		
Selenium (dissolved)	µg/l	1	Non Hazardous Pollutant	-	1	LOD	1	LOD	
Sodium (dissolved)	µg/l	1	Non Hazardous Pollutant	-	1	LOD	1	LOD	
Vanadium (dissolved)	µg/l	1	Not Determined	20	not required		20	EQS	
Zinc (dissolved)	µg/l	1	Non Hazardous Pollutant	10.9*	not required		10.9	EQS	*Consider Bioavailbility (M-BAT tool)
PAH 16MS (w)									
Acenaphthene (w)	µg/l	0.01	Hazardous Substance	-	0.01	LOD	0.01	LOD	
Acenaphthylene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Anthracene (w)	µg/l	0.01	Hazardous Substance	0.1	not required		0.1	EQS	
Benzo(a)anthracene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Benzo(a)pyrene (w)	µg/l	0.01	Hazardous Substance	0.27	not required		0.27	EQS	
Benzo(b)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	0.017	not required		0.017	EQS	
Benzo(ghi)perylene (w)*	µg/l	0.01	Hazardous Substance	8.20E-04	not required		8.20E-04	EQS	
Benzo(k)fluoranthene (w)*	µg/l	0.01	Hazardous Substance	0.017	not required		0.017	EQS	
Fluoranthene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Dibenzo(ah)anthracene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Chrysene (w)	µg/l	0.01	Hazardous Substance	-	0.01	LOD	0.01	LOD	
Fluorene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Indeno(123-cd)pyrene (w)*	µg/l	0.01	Hazardous Substance	-	0.01	LOD	0.01	LOD	
Naphthalene (w)	µg/l	0.01	Non Hazardous Pollutant	130	not required		130	EQS	
Phenanthrene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Pyrene (w)	µg/l	0.01	Not Determined	-	0.01	LOD	0.01	LOD	
Total PAH (sum of 4 PAH*)	µg/l	0.01	-	-	0.01	LOD	0.01	LOD	
TPH CWG (w)									
Ali >C5-C6 (w)	µg/l	1	Not Determined	-	none proposed		No screening value		
Ali >C6-C8 (w)	µg/l	1	Not Determined	-	none proposed		No screening value		
Ali >C8-C10 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Ali >C10-C12 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Ali >C12-C16 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Ali >C16-C21 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Ali >C21-C35 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Total Aliphatics (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C5-C7 (w)	µg/l	1	Not Determined	50	not required		50	EQS	
Aro >C7-C8 (w)	µg/l	1	Not Determined	-	none proposed		No screening value		
Aro >C8-C10 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C10-C12 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C12-C16 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C16-C21 (w)	µg/l	5	Not Determined	-	none proposed		No screening value		
Aro >C21-C35 (w)	µg/l	10	Not Determined	-	none proposed		No screening value		
Total Aromatics (w)	µg/l	10	Not Determined	-	none proposed		No screening value		
TPH (Ali & Aro >C5-C35) (w)	µg/l	10	Not Determined	-	none proposed		No screening value		
BTEX									
BTEX - Benzene (w)	µg/l	1	Hazardous Substance	50	not required		50	EQS	
BTEX - Toluene (w)	µg/l	1	Hazardous Substance	74	not required		74	EQS	
BTEX - Ethyl Benzene (w)	µg/l	1	Hazardous Substance	-	1	LOD	1	LOD	
BTEX - m & p Xylene (w)	µg/l	1	Hazardous Substance	30	not required		30	EQS	
BTEX - o Xylene (w)	µg/l	1	Hazardous Substance	30	not required		30	EQS	
MTBE (w)	µg/l	1	Non Hazardous Pollutant	-	none proposed		No screening value		

Subject **Waste Assessment – Methodology**

Date 10 December 2021 Job No/Ref HE565627

It is hoped the scheme design can be optimised to retain / incorporate all site won excavated soils within the wider project and to minimise the requirement for off-site disposal. However, it is likely a proportion of site generated excavation arisings may be unsuitable for re-use within the scheme due to programme, storage space, geotechnical or geoenvironmental properties and therefore require to be discarded as waste.

A preliminary waste classification exercise has been undertaken using the results obtained from the ground investigations to determine the likely waste classification of soils within the scheme and provide a likely List of Waste (LoW) code in the event they require to be discarded as a waste.

Waste classification is a two-stage process, with the first step comprising a hazardous properties assessment of the soil quality data in line with the guidance set out in the Environment Agency: Guidance on the Classification and Assessment of Waste Technical Guidance WM3 document[1] to provide the likely LoW code.

The LoW codes are required to be provided to the receiving landfill. In relation to 'Construction and Demolition Wastes' the most likely relevant LoW codes are as follows:

- **17 05 03** - 'Hazardous' materials will have a LoW code of "Construction and Demolition Wastes * (soils and stones containing hazardous substances)". or
- **17 05 04** - 'Non-Hazardous' materials have the LoW code: "Construction and Demolition Wastes (soils and stones other than those in 17 05 03)".

If soils are classified as "non-hazardous" (LoW code 17 05 04), no further assessment is necessary and they may either be deposited in a 'non-hazardous' waste landfill (for which no WAC tests are required) or may potentially be considered as 'inert' waste (a sub-set of 'non-hazardous' waste), however this would require confirmation of suitability for this particular waste stream through WAC testing.

However, if soils are classified as "hazardous" (LoW code 17 05 03), a second step is required to be undertaken which assesses the potential mobility of the contaminants within the materials in a landfill by considering the results of waste acceptance criteria (WAC) testing

Generally, wastes that are classified as 'hazardous' require to be deposited in a hazardous waste landfill or within a stable non-reactive hazardous waste cell (typically restricted to asbestos containing materials) (depending on the WAC test results and interpretation).

Soil quality data from the ground investigation was entered into a hazard assessment tool, HazWasteOnline™

[1] Guidance on the classification and assessment of waste (1st Edition v1.2.GB) Technical Guidance WM3 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1021051/Waste_classification_technical_guidance_WM3.pdf

HazWasteOnline™ includes several options for using the different valencies (chemical species) or compounds that may be present, (e.g. whether the chromium found is chromium III or the less common but more toxic chromium VI). Where these options were available these were generally set at the default (worst case assessment) for the model in accordance with the guidance set out in EA WM3. Where this is not the case justification and site-specific reasoning is given.

It must be noted that hazardous waste guidance in the UK is revised at regular intervals and the results of the assessment could change with subsequent revisions.

Project specific amendments made to the default assumptions within HazWasteOnline

Default parameters HazWasteOnline™ assessment model can sometime provide an overly conservative assessment of the hazard posed by substances and therefore, as per the model guidance, a number of site-specific amendments require to be made more accurately reflect the specific species of contaminants found within the schemes. These are summarised as follows

1. Issues with the HazWasteOnline™ waste stream template which have been fixed:
    a. The C5 band without a CAS-RN has been ignored.
    b. Total TPH C10-C40 ali/aro has been ignored.
    c. Total TPH C5-C40 has been amended to TPH C6-C40.
2. Four different populations have been identified: Topsoil, Made Ground, Superficial Deposits and Rock each of which have separate jobs on HazWasteOnline™ for each soil type/population.
3. It is assumed Made Ground is homogenous vertical and laterally.
4. Metal species have been managed as follows:
    d. **Arsenic** (arsenic) - arsenic could be present on agricultural land due to application of insecticide/wood preservative.
    e. **Boron** (diboron trioxide; boric acid) - based on the hazard statements and molecular weight, physical form, and low solubility of Boron it is likely more soluble forms have been mobilised already on agricultural land.
    f. **Cadmium** (Cadmium oxide) – Species based on the hazard statements, molecular weight, and very low solubility in water. The worst-case compounds (cadmium sulphate, chloride, fluoride & iodide) are not expected as they are either very soluble and/or compound's industrial usage not related to site history as site has been in agricultural land use
    g. **Chromium III** (Chromium III oxide) – There is only one option on the template, and it is a reasonable worst case.

h. **Chromium VI compounds** – Although it can be found in wood preservatives there is no likely industrial /contaminative land use source on the sites.

i. **Copper** (Copper (I) oxide) - Based on hazard statements, molecular weight and insolubility in water. Sources can include brake pads/fungicides however, there are no likely industrial sources observed in the historic or current industrial review. It is also noted that the worst-case compound, copper sulphate, is very soluble and likely to have been leached away if ever present.

j. **Lead** compounds - Reasonable worst-case compound as there is insufficient chromium VI for lead chromate to be present.

k. **Mercury** inorganic compounds - Reasonable worst-case compound as the sites have a very limited industrial history.

l. **Nickel** (Dinickel hexacyano ferrate) - Reasonable worst-case compound as no industrial sources and insufficient Chromium VI for nickel chromate to be present.

m. **Selenium** (nickel (II) selenite) – The next most likely worst-case compound, nickel selenate, is soluble in water and as site is agricultural land it is likely to have been leached from soils if ever present.

n. **Zinc** - Reasonable worst-case compound given that there is insufficient chromium VI for zinc chromate to be present and no potential industrial sources for zinc chloride, zinc sulphate or zinc phosphate.

o. **Cyanide** (Salts of hydrogen cyanide) - Harmonised group entry used as most reasonable, it is unlikely complex cyanides and those specified elsewhere in the annex are present in this soil. Note conversion factor based on a worst-case compound: sodium cyanide

5. Flammable hazardous property thresholds have been altered to 10,000mg/kg. This is because the Hazardous Property (HP) HP 3 (i) – Flammable is unlikely to apply to this waste stream, due to the solid soil and natural moisture content of the samples. The concentration required to provide a flammability risk is >10,000mg therefore, the risk of flammability from solid state soils with <1000mg/kg TPH is negligible.

C.2 Test Suites and Sample Catalogues

Subject **Chemical Testing Suites**

Date 10 December 2021 Job No/Ref HE565627

Soil Suites

Determinand	Units	LoD
Suite E1a - Primary Metals and Metalloids		
Arsenic	mg/kg	1
Boron (Water Soluble)	mg/kg	1
Cadmium	mg/kg	1
Total Chromium	mg/kg	1
Trivalent Chromium	mg/kg	1
Hexavalent Chromium	mg/kg	1
Copper	mg/kg	1
Lead	mg/kg	1
Mercury	mg/kg	1
Nickel	mg/kg	1
Selenium	mg/kg	1
Zinc	mg/kg	1
Suite E1b - Secondary Metals and Metalloids (R/O)		
Antimony	mg/kg	1
Barium	mg/kg	1
Beryllium	mg/kg	1
Molybdenum	mg/kg	1
Vanadium	mg/kg	1
Suite E2 - Inorganics		
pH	pH units	0.1
SOM	% w/w	0.01
TOC	% w/w	0.01
Sulphate	mg/kg	0.01
Sulphides	mg/kg	0.01
Loss on ignition	% w/w	0.1
Suite E3 - CN/Phenol		
Free Cyanide	mg/kg	1
Phenols – total	mg/kg	1
Suite E4a - Asbestos 1		
Asbestos Presence and ID	% w/w	0.001
Suite E4b - Asbestos 2 *		
Asbestos Quantification	% w/w	0.001
Suite E4c - Asbestos 3		
24hr water Absorption Test	%w/w	0.01
Suite E5 - General Organics		
Total Petroleum Hydrocarbons	mg/kg	50
Diesel Range Organics	mg/kg	50
Petrol Range Organics	mg/kg	1
Mineral oils	mg/kg	50
Suite E6a - TPHCWG		
TPHCWG	mg/kg	0.01
Suite E6b - BTEX		

Subject **Chemical Testing Suites**

Date 10 December 2021 Job No/Ref HE565627

Determinand	Units	LoD
BTEX	mg/kg	0.01
Suite E7a - Speciated PAHs 1		
USEPA 16 PAHs	mg/kg	0.01
Suite E7b - Speciated PAHs 2		
USEPA 16 PAHs + coronene	mg/kg	0.01
Suite E8a - PCBs 1		
PCBs (WHO12)	µg/kg	3
Suite E8b - PCBs 2		
PCBs (EC7)	mg/kg	0.1
Suite E9 - SVOCs and VOCs		
SVOCs with TIC	mg/kg	0.01
VOCs with TIC	mg/kg	0.01
Suite E10 - Organochlorine Pesticides		
Organochlorine herbicides/pesticides	mg/kg	0.005#
Suite E11 - Triazine Pesticides		
Triazine herbicides/pesticides	mg/kg	0.1
Suite E12 - Organophosphate Pesticides		
Organophosphate herbicides/pesticides	mg/kg	0.001#

WAC Suites

Determinand	Units	LoD
WAC Suite H		
WAC Suite H (2 stage) - ICE Inert WAC (BSEN12457-3, 2:1)	Various	Various
WAC Suite I		
WAC Suite I (2 Stage) - ICE SNR-Haz WAC (BSEN12457-3, 2:1)	Various	Various
WAC Suite J		
WAC Suite J (2 Stage)- ICE Haz WAC (BSEN12457-3, 2:1)	Various	Various

Water Suites

Determinand	Units	LoD
Suite F1a - Metals and Metalloids		
Arsenic	µg/L	1
Cadmium	µg/L	0.01
Chromium (III & VI)	µg/L	1
Copper	µg/L	0.1
Iron	µg/L	100
Lead	µg/L	0.1
Mercury	µg/L	0.01
Nickel	µg/L	1
Selenium	µg/L	1
Zinc	µg/L	1
pH value	pH Units	0.1
Calcium	mg/L	1

Subject **Chemical Testing Suites**

Date 10 December 2021 Job No/Ref HE565627

Determinand	Units	LoD
Hardness	$CaCO_3$ µg/L	2
Alkalinity as $CaCO_3$	µg/L	2
Dissolved organic carbon (DOC)	µg/L	1
Suite F1b - Metals and Metalloids		
Boron	µg/L	100
Magnesium	mg/L	1
Manganese	µg/L	1
Molybdenum	µg/L	1
Vanadium	µg/L	1
Suite F2 - Major Ions		
Sulphate	µg/L	1000
Chloride	mg/L	10
Nitrate	µg/L	1
Sulphide	µg S^{2-}/L	0.1
Nitrite	µg/L	100
Sodium	mg/L	100
Potassium	mg/L	1
Suite F3 - Ammoniacal Nitrogen		
Ammoniacal Nitrogen (to be reported as ammoniacal nitrogen as N and as unionised ammonia)	µg/L	50
Suite F4 - Electrical Conductivity		
Electrical Conductivity	µs/cm	5
Suite F5 - Total Suspended Solids		
Total Suspended Solids	mg/L	10
Suite F6 - Oxygen Demand		
Biological Oxygen Demand	µg O_2/L	1000
Chemical Oxygen Demand	µg O_2/L	50
Suite F7a - TPHCWG		
TPHCWG	µg/L	1
Suite F7b - BTEX		
BTEX	µg/L	0.1
Suite F8 - Speciated PAHs		
PAHs (USEPA 16)	µg/L	0.0001
Suite F9 - Volatiles		
VOC suite including TICs	µg/L	0.001
SVOC suite including TICs (including PAHs)	µg/L	0.001
Suite F10 Phenols and Cyanides		
Free cyanide	µg/L	0.5
Phenol	µg/L	1
Suite F11a - PCBs (WHO12)		
PCBs (WHO12)	µg/L	0.005
Suite F11b - PCBs (EC7)		
PCBs (EC7)	µg/L	0.005
Suite F12 - Organochlorine Pesticides		
Organochlorine herbicides/pesticides	µg/L	0.0001
Suite F13 - Triazine Pesticides		
Triazine herbicides/pesticides	µg/L	0.001

Subject **Chemical Testing Suites**

Date 10 December 2021 Job No/Ref HE565627

Determinand	Units	LoD
Suite F14 - Organophosphate Pesticides		
Organophosphate herbicides/pesticides	µg/L	0.01
Suite F15 - General Organics		
Total Petroleum Hydrocarbons	µg/L	10
Diesel Range Organics	µg/L	10
Petrol Range Organics	µg/L	10
Mineral oils by IR	µg/L	100
Suite F16 - Bacterial Suite		
Bacterial Suite	number/100 ml	0

national highways

A66 NTP Integrated Project Team

A66 Northern Trans-Pennine

Geo-Env - WP B - Appx C2 - Sample Catalogue

Kemplay Bank

Document Verification	
Project Title	A66 Northern Trans-Pennine Kemplay Bank
Document Title	Geo-Env - WP B - Appx C2 - Sample Catalogue
Document Ref	HE565627-AMY-HGT-S02-SI-CE-000011

Rev	Suit. Code	Suitability		Purpose of Issue		
P01	S1	Fit for Co-ordination				
		Created	Checked	Reviewed	Approved	Authorised
	Signature	J.Morley	J.Morley	R.Hughes	G.McGarrity	---
	Date	10/02/22	10/02/22	10/02/22	11/02/22	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Rev	Suit. Code	Suitability		Purpose of Issue		
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		Created	Checked	Reviewed	Approved	Authorised
	Signature	---	---	---	---	---
	Date	---	---	---	---	---

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (c10-c40)	TPH CWG (inc BTEX / MTBE)	BTEX	US EPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
36	BH M6J40.002A-1	0.20	Topsoil	21-04484	X		X	X	X					X		X								X		
		0.50	very gravelly slightly clayey SAND		X		X							X		X										
42	BH M6J40.005-2	0.10	possible MG	21-04443	X		X	X	X					X		X										
		0.50	possible MG		X		X	X	X					X		X								X		
		2.00	CLAY		X		X							X		X										
46	BH M6J40.002	0.20	Topsoil - slightly gravelly very sandy clay	21-04489	X		X	X	X					X		X										
		0.50	slightly sandy very gravelly clay		X		X							X		X								X		
49	BH M6J40.001	0.20	MG Topsoil - porcelain fragments in gravelly slightly clayey sand	21-04553	X		X	X	X					X		X										
		0.50	sandy CLAY		X		X	X	X					X		X								X		
50	HTP M6J40.001	0.50	TOPSOIL	21-04438	X		X							X		X										
		1.00	Gravelly sandy clay		X		X							X		X								X		
	HTP M6J40.002	0.30	topsoil - gravelly sandy clay		X		X	X	X					X		X								X		
		0.50	Gravelly sandy clay		X		X							X		X										
57	SD M6J40.005a	0.10	possible MG topsoil	21-04666	X		X	X	X					X		X										
		0.50	MADE GROUND: Firm to stiff friable dark orangish brown slightly sandy gravelly CLAY		X		X	X	X					X		X										
58	SD M6J40.005a	3.55	MG strong hydrocarbon odour	21-04810	X		X		X					X		X				X						
		4.00	CLAY		X		X		X					X		X				X						
59	BH M6J40.004	0.50	MG - clayey gravelly sand	21-04947	X		X		X					X		X										
	BH M6J40.004A	0.30	MG - slightly sandy slightly gravelly clay. Reworked topsoil		X		X		X					X		X										
60	HP M6J40.009	0.20	MADE GROUND: Grass overlying dark brown clayey slightly gravelly fine to coarse SAND	21-05028	X		X	X	X					X		X										
		0.60	MADE GROUND: Firm light reddish brown slightly sandy gravelly CLAY		X		X	X	X					X		X										
		1.50	MADE GROUND: Stiff light reddish brown slightly sandy very gravelly CLAY		X		X	X	X					X		X								X		
61	TP M6J40.001	0.200	MG	21-05388	X		X	X	X					X		X								X		
		0.50	MG		X		X	X	X					X		X										
	TP M6J40.002	0.20	MADE GROUND: Grass overlying dark brown slightly clayey slightly gravelly fine to coarse SAND	21-05260	X		X	X	X					X		X										
		0.50	MADE GROUND: Firm light orangish brown slightly sandy gravelly CLAY		X		X	X	X					X		X								X		
		1.10	SAND		X		X	X	X					X		X										
64	TP M6J40.003	0.20	MADE GROUND	21-05117	X		X																	X		
		0.30	MADE GROUND		X		X																			
65	TP M6J40.004	0.15	TOPSOIL	21-05118	X		X	X	X					X		X								X		
		0.50	Gravel		X		X							X		X										
66	TP M6J40.006	0.15	MG - Plastic waste and occasional brick	21-05246	X		X	X	X					X		X										
		0.9	MG - sandy gravelly clay		X		X	X	X					X		X								X		
	TP M6J40.007	0.15	MG - rare brick		X		X	X	X					X		X								X		
		0.5	CLAY		X		X	X	X					X		X										
67	TPM6J40.005	0.15	TOPSOIL	21-05327	X		X	X	X					X		X										
		0.5	CLAY		x		x							x		x								x		

Schedule ID	Schedule Issue Date	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I
						Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (c10-c40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC
18	31/03/2021	BH KBR012	0.50	MG - slightly sandy very gravelly clay. Gravel of mixed lithologies. Slight hydrocarbon odour	21-03529	X		X	X	X					X		X									
			1.20	MG - slightly sandy very gravelly clay. Gravel of mixed lithologies including asphalt		X		X	X	X					X		X								X	
			1.70	MG - slightly sandy very gravelly clay. Gravel of mixed lithologies including asphalt		X		X	X	X					X		X									
21	01/04/2021	TP KBR009	0.20	MG - slightly gravelly slightly sandy silty clay	21-03616	X		X	X	X					X		X									
			1.20	MG - gravelly very clayey sand		X		X	X	X					X		X								X	
24	09/04/2021	BH KBR002	0.20	Topsoil - gravelly very sandy clay	21-04000	X		X							X		X									
			0.50	very sandy clayey gravel		X		X	X						X		X								X	
		BH KBR003	0.30	TOPSOIL		X		X	X	X					X		X								X	
			1.20	CLAY		X		X							X		X									
28	22/04/2021	BH KBR006	0.50	MG	21-04483	X			X	X					X		X								X	
			1.00	MG		X				X					X		X									
			2.00	CLAY		X									X		X									
47	23/04/2021	BH KBR011	0.20	topsoil - slightly gravelly clayey silty sand	21-04490	X		X	X	X					X		X								X	
			1.50	gravelly clayey sand		X		X							X		X									
48	23/04/2021	TP KBR004	0.10	Topsoil - slightly gravelly clayey sand	21-04491	X		X	X	X					X		X									
			0.50	sandy gravelly CLAY		X		X							X		X								X	
		TP KBR007	0.50	SAND AND GRAVEL		X		X							X		X									
			1.60	GRAVEL		X		X							X		X								X	
51	26/04/2021	BH KBR008	0.20	MG - Slightly clayey gravelly sand	21-04437	X		X	X	X					X		X									
			0.50	MG - gravelly sand. Faint hydrocarbon odour		X		X	X	X					X		X								X	
			1.000	GRAVEL		X		X							X		X									
52	27/04/2021	TP KBR003	0.30	topsoil - gravelly slightly clayey sand	21-04549	X		X	X	X					X		X								X	
			0.90	slightly clayey very gravelly sand		X		X							X		X									
53	27/04/2021	BH KBR007	0.10	MG Topsoil - brick and tarmac fragments	21-04551	X		X	X	X					X		X									
			1.00	MG slightly sandy gravelly clay.		X		X	X	X					X		X								X	
			1.90	MG slightly sandy gravelly clay. Reworked appearance		X		X	X	X					X		X									
54	29/04/2021	TP KBR005	0.30	Topsoil - slightly clayey slightly gravelly sand	21-04653	X		X	X	X					X		X									
			1.00	slightly gravelly clayey SAND		X		X							X		X								X	
55	29/04/2021	BH KBR005	0.20	MG	21-04652	X		X	X	X					X		X									
			0.60	MG		X		X	X	X					X		X								X	
			2.00	CLAY		X		X							X		X									
56	29/04/2021	BH KBR009	0.5	MG	21-04654	X		X	X	X					X		X									
			1	MG		X		X	X	X					X		X								X	
			1.5	CLAY		X		X							X		X									
62	11/05/2021	SD KBR007	0.5	MG	21-05137	X		X	X	X					X		X								X	
			2.9	SAND		X		X	X	X					X		X									
63	11/05/2021	TP KBR006	0.5	MG - clayey gravelly sand with concrete and brick	21-05214	X		X	X	X					X		X									
			1.2	GRAVEL		X		X	X	X					X		X								X	
68	14/05/2021	SD KBR005	0.3	MG - reworked topsoil	21-05249	X		X	X	X					X		X									
			1	MG - gravelly sandy clay with cobbles		X		X	X	X					X		X								X	
			1.55	MG - gravelly sandy clay with slag, clinker and strong hydrocarbon odour		X		X	X	X					X		X				X					
			3.45	SAND		X		X	X	X					X		X									
69	17/05/2021	SD KBR008	0.3	MG - reworked topsoil	21/05363	X		X	X	X					X		X									
			1.25	MG - sandy v gravelly clay, gravel with mixed lithologies		X		X	X	X					X		X								X	
			2.8	GRAVEL		X		X	X	X					X		X									

Schedule ID	Exploratory Hole ID	Sample Depth (m bgl)	Sample Strata	Test certificate	E1a	E1b	E2	E3	E4a	E4b	E4c	E5	E5a	E6a	E6b	E7a	E7b	E8a	E8b	E9	E19	E11	E12	WAC H	WAC I	WAC J
					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (c10-c40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
001	BH PTS017	0.1 - 0.2	TOPSOIL	21-02579	X		X	X	X					X		X								X		
		0.4 - 0.5	Reddish brown gravelly clayey SAND	21-02579	X		X							X		X								X		
		1.1 - 1.2		21-02579	X		X							X		X										
	BH PTS019	0.1 - 0.2	Grass over dark brown clayey gravelly SAND	21-04198	X		X							X		X										
		0.5 - 0.6	Brown slightly gravely SAND		X		X							X		X								X		
		1.1 - 1.2	Medium dense reddish brown clayey SAND		X		X							X		X										
2	TP PTS017	0.20	TOPSOIL MG	21-03003	X		X	X	X					X		X										
		1.80	Reddish brown slightly gravelly clayey fine to coarse SAND	21-03003	X		X							X		X								X		
3	BH PTS014	0.60	Orangish brown slightly gravelly slightly silty fine to coarse SAND	21-03002	X		X	X	X					X		X								X		
4	BH PTS018	0.60	Dense brown sand	21-03004	X		X	X	X					X		X								X		
5	TP PTS012	0.10	MG brown gravelly clayey SAND	21-03050	X		X	X	X					X		X										
		0.40	Brown sandy gravelly CLAY		X		X							X		X										
6	BH PTS015	0.30	TOPSOIL	21-03052	X		X		X					X		X										
		1.00	Orangish brown slightly gravelly slightly silty clayey fine to coarse SAND	21-03052	X		X							X		X										
7	TP PTS018	0.20	Dark brown slightly gravelly silty fine to coarse SAND	21/03411	X		X							X		X										
		1.20	Light orangish brown slightly gravelly clayey fine to coarse SAND	21/03411	X		X							X		X										
8	TP PTS015	0.20	MADE GROUND: Grass over brown slightly gravelly clayey fine to coarse SAND	21-03111	X		X	X	X					X		X										
		1.80	Reddish brown slightly gravelly clayey fine to coarse SAND		X		X							X		X								X		
9	BH PTS010	0.30	TOPSOIL	21/03178	X		X							X		X								X		
		0.50	Soft reddish brown slightly gravelly slightly sandy silty CLAY.	21/03178	X		X							X		X										
10	TP PTS022	0.100	MADE GROUND: Grass over brown slightly gravelly clayey fine to coarse SAND	21/03177	X		X	X	X					X		X								X		
		1.50	Reddish brown slightly gravelly clayey fine to coarse SAND	21/03177	X		X							X		X										
11	BH PTS007	0.50	soft light brown gravelly sandy clayey SILT	21-03176	X		X	X	X					X		X								X		
12	TP PTS020	0.10	REWORKED TOPSOIL	21/03234	X		X	X	X					X		X								X		
		0.60	Greyish brown/orangish mottling slightly gravelly clayey fine to coarse SAND	21/03234	X		X							X		X										
	TP PTS025	0.20	REWORKED TOPSOIL	21/03234	X		X	X	X					X		X								X		
		1.20	reddish brown with localised greyish mottling and localised yellowish mottling slightly gravelly very sandy CLAY	21/03234	X		X							X		X										
	TP PTS027	0.50	MG - Brown slightly gravelly clayey fine to coarse SAND	21/03234	X		X	X	X					X		X								X		
		1.20	gravelly clayey fine to coarse SAND	21/03234	X		X							X		X										
13	BH PTS013	0.30	MADE GROUND: Long grass overlying brown slightly gravelly slightly clayey fine to coarse SAND.	21/03237	X		X	X	X					X		X										
		1	reddish brown slightly gravelly clayey fine to coarse SAND	21/03237	X		X							X		X								X		
14	TP PTS019	0.6	Orangish brown slightly gravelly clayey fine to coarse SAND	21/03235	X		X	X	X					X		X								X		
		2.2	reddish brown with localised yellowish mottling slightly gravelly very sandy CLAY	21/03235	X		X							X		X										
15	BH PTS011	0.2	Topsoil - slightly gravelly very clayey sand	21/03298	X		X	X	X					X		X										
		1.2	slightly gravelly sandy CLAY	21/03298	X		X							X		X								X		
	BH PTS 012	0.3	Topsoil - rapeseed crop overlying slightly gravelly clayey Sand	21/03298	X		X	X	X					X		X								X		
		1	gravelly sandy clay	21/03298	X		X							X		X										
16	TP PTS016	0.6	Possible MG - slightly gravelly clayey sand with frequent rootlets	21-03623	X		X	X						X		X										
		1.5	slightly clayey fine to coarse sand	21-03623	X		X							X		X								X		
17	BH PTS005	0.2	Possible MG - slightly gravelly clayey sand with gravel of mixed lithologies	21-03417	X		X		X					X		X										
		1.2	Peat	21-03417	X		X	X						X		X								X		
	BH PTS009	0.3	Topsoil rapeseed crop over gravelly clayey sand	21-03417	X		X							X		X										
		0.5	gravelly clayey sand with medium cobble content	21-03417	X		X							X		X								X		
19	WS PTS016	0.2	Topsoil - slightly gravelly very clayey sand. Gravel of mixed lithologies	21/03471	X		X	X	X					X		X										
		0.5	slightly gravelly clayey sand	21/03471	X		X							X		X										
20	BH PTS022	0.2	possible MG - slightly clayey slightly gravelly sand	21-03527	X		X	X	X					X		X								X		
		0.5	clayey gravelly sand	21-03527	X		X							X		X										
22	WS PTS016A	0.2	MG/Topsoil sandy slightly clayey gravel	21-03646	X		X	X	X					X		X										
23	TP PTS006	0.2	Slightly clayey slightly gravelly sand	21/03747	X		X	X	X					X		X								X		
		0.65	slightly clayey gravelly sand	21/03747	X		X							X		X										
	TP PTS008	0.2	slightly gravelly slightly clayey sand	21/03850	X		X	X	X					X		X										
		1	slightly gravelly clayey sand	21/03850	X		X							X		X										
	TP PTS007	0.5	slightly clayey gravelly sand		X		X							X		X								X		
		1	slightly clayey sandy gravel		X		X							X		X										

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					Primary Metals	Secondary Metals	Inorganics	CN- / Phenol	Asbestos (Presence /ID)	Asbestos (Quant)	Asbestos (H2O Absorb)	TPH (GRO/ DRO / Mineral oil)	Mineral oil (c10-c40)	TPH CWG (inc BTEX / MTBE)	BTEX	USEPA PAHs	USEPA PAHs + coronene	PCB WHO12	PCB EC7	SVOCs and VOCs	OCP	Triazine Pesticides	OPP	2 Stage Inert WAC	2 Stage SNRHW WAC	2 Stage Haz WAC
25	TP PTS009	0.2	Topsoil - slightly clayey gravelly sand	21-04037	X		X		X					X		X										
		0.5	slightly clayey gravelly sand		X		X							X		X								X		
	TP PTS010	0.5	slightly clayey gravelly sand		X		X							X		X										
		1.35	clayey sandy gravel		X		X							X		X								X		
	TP PTS013	0.2	topsoil - clayey slightly gravelly sand		X		X	X	X					X		X								X		
	TP PTS014	0.2	topsoil - clayey slightly gravelly sand	21-04815	X		X	X	X					X		X										
		2	slightly gravelly clayey sand		X		X							X		X								X		
26	BH PTS003	0.1	topsoil - slightly gravelly slightly sandy silty clay	21/03804	X		X	X	X					X		X										
		0.5	slightly clayey gtabelly sand	21/03804	X		X							X		X								X		
27	BH PTS023	0.1	MG - Slightly sandy silty clay	21-03999	X		X	X	X					X		X										
		0.5	MG - Ballast - sandy gravel	21-03999	X		X	X	X					X		X								X		
		1.2	sandy slightly clayey gravel	21-03999	X		X							X		X										
28	BH PTS008	0.2	MG- Ashy sandy gravel with concrete and limestone	21-04138	X		X	X	X					X		X								X		
		1.2	MG - gravelly clay, rare charcoal		X		X							X		X										
		2	MG - gravelly clay, rare charcoal		X		X		X					X		X										
29	BH PTS002	0.1	MG - Sandy clay	21-04001	X		X	X	X					X		X										
		1.2	slightly sandy slightly gravelly CLAY	21-04001	X		X							X		X								X		
30	BH PTS006	0.2	topsoil - slighlty claey silty sand	21-03747	X		X	X	X					X		X								X		
		0.5	slightly gravelly sand		X		X							X		X										
31	BH PTS001A	0.4	Slightly clayey slightly gravelly sand	21-04154	X		X	X	X					X		X								X		
		0.7	Ashy sandy gravel		X		X	X	X					X		X				X						
32	TP PTS004	0.2	MG - gravelly clayey sand. Fragments of plastic	21-04152	X		X	X	X					X		X										
	TP PTS004B	1.1	sandy gravelly CLAY		X		X							X		X										
34	TP PTS021	0.2	Topsoil - gravelly clayey sand	21-04441	X		X	X	X					X		X								X		
		1.5	slightly gravelly sandy clay		X		X							X		X										
35	TP PTS024	0.6	Slightly gravelly clayey sand	21-04442	X		X							X		X								X		
		2.5	gravelly sandy clay	21-04442	X		X							X		X										
37	BH PTS020	0.5	slightly gravelly slightly clayey sand	21-04253	X		X							X		X								X		
39	TP PTS023	0.2	Topsoil - slightly gravelly clayey sand	21-04440	X			X	X					X		X								X		
		1.2	slightly gravelly sand		X									X		X										
40	TP PTS001A	0.2	Topsoil clayey gravelly sand	21-04485	X		X	X	X					X		X										
		1.2	sandy gravelly CLAY		X		X							X		X										
41	TP PTS026	0.6	gravelly clayey sand	21-04481	X									X		X								X		
43	TP PTS003	0.2	MG - clayey gravelly sand with general waste materials and rebar	21-04486	X		X	X	X					X		X								X		
		0.9	clayey gravelly sand		X		X							X		X										
44	tp PTS021	0.15	slightly gravelly clayey sand	21-04480	X		X	X	X					X		X								X		
		0.5	Slightly clayey slightly gravelly sand		X		X							X		X										
45	TP PTS005	0.4	slightly clayey gravelly sand	21-04479	X		X							X		X										
		2.5	Orangish brown slightly gravelly clayey fine to coarse SAND		X		X							X		X								X		