

# Gatwick Airport Northern Runway Project

Environmental Statement Appendix 10.9.1: Preliminary Risk Assessment

## **Book 5**

VERSION: 1.0 DATE: JULY 2023 Application Document Ref: 5.3 PINS Reference Number: TR020005

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



## Table of Contents

1 Introduction 2 **Baseline Information** Preliminary Risk Assessment 3 Conceptual Site Model 4 Conclusions and Recommendations 12 5 References 12 6 Glossary 13 7

Annex 3 Previous Ground Investigation Reports Summary

- 1 Annex 4 Ground Investigation Report Extracts
- 1 Annex 5 Screening Criteria
- 8 Annex 6 Part 2A (The Contaminated Land Regime)
- 10 Annex 7 Strategy for Further Works

## Tables

| Table 2.1.1: Site History   | 1       |
|---|---------|
| Table 2.3.1: Geology  | 2       |
| Table 2.3.2: Aquifer Classification                                   | 3       |
| Table 2.3.3: Environmental Data                                       | 3       |
| Table 2.3.4: Groundwater Chemical Results ExceedingScreening Criteria | 6       |
| Table 2.3.5: Chemical Leachate Results Exceeding Screenin<br>Criteria | ng<br>7 |
| Table 3.2.1: Potential Areas of Concern (On Site - Existing)          | 8       |
| Table 4.1.1: Outline Conceptual Site Model                            | 11      |
| Table 7.1.1: Glossary of Terms  | 13      |
| Annexes   |         |
| Annex 1 Assessment Limitations  |         |
| Annex 2 Walkover Observations   |         |



#### Introduction 1

#### 1.1 General

- 1.1.1 This document forms Appendix 10.9.1 of the Environmental Statement (ES) prepared on behalf of Gatwick Airport Limited (GAL) for the proposal to make best use of Gatwick Airport's existing runways and infrastructure (referred to within this report as 'the Project').
- This document provides the Preliminary Risk Assessment for the 1.1.2 Project.

#### 1.2 Preamble

1.2.1 The Preliminary Risk Assessment provides an appraisal of potential areas of land contamination likely to be affected by the Project and forms the main source of information in defining the Baseline Environment (Section 10.6 of ES Chapter 10: Geology and Ground Conditions (Doc Ref. 5.1)). It utilises desk based 1.3.2 information and data from previous ground investigations to determine whether potential contamination sources resulting from historical/existing activities could cause a risk to future site users, construction workers, adjacent site users, controlled waters and the environment during the construction and operation of the Project. This Preliminary Risk Assessment has been undertaken to identify areas of land contamination that would plausibly cause a risk and thus determine whether control measures or remediation are necessary. 1.3.3

#### 1.3 Legislation, Policy and Guidance

- 1.3.1 This report has been produced in general accordance with the following:
  - Water Environment (Water Framework Directive) Regulations 2017;
  - Contaminated Land (England) Regulations 2006;
  - Environmental Protection Act 1990;
  - Environmental Permitting (England and Wales) Regulations 2016;
  - National Planning Policy Framework (2021);
  - Airports National Policy Statement (2018);
  - National Networks National Policy Statement (2015);
  - Department for Environmental, Food and Rural Affairs (DEFRA) Environmental Protection Act 1990: Part 2A -Contaminated Land Statutory Guidance (2012);

- Environment Agency (2020) Land Contamination Risk Management (LCRM)
- Construction Industry Research and Information Association (CIRIA) Document C665: Assessing Risks Posed by Hazardous Ground Gases to Buildings (CIRIA, 2007);
- CIRIA Document C552 Contaminated land Risk Assessment: A Guide to Good Practice (CIRIA, 2001a);
- CIRIA Document C532 Control of Water pollution from Construction Sites: Guidance for Consultants and Contractors (CIRIA, 2001b);
- British Standard requirements for the 'Investigation of potentially contaminated sites - Code of practice' (ref. BS10175:2011+A2:2017);
- British Standard requirements for the 'Code of practice for ground investigations' (ref. BS5930:2015); and
- British Standard requirements for the 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings' (ref BS8485:2015+A1:2019).
- Where appropriate, consideration has also been given to the following:
  - The potential for environmental liabilities to occur under other associated regimes, for example the Water Resources Act 1991 and the Environmental Damage (Prevention and Remediation) (England) Regulations 2015; and
  - Key constraints on site redevelopment.
- Details of the limitations of this type of assessment are described in Annex 1.

#### **Data Sources**

1.4

1.4.1

- The assessment utilises information obtained from the following sources:
  - British Geological Survey (BGS), Geology of Britain Viewer (Website:
  - http://mapapps.bgs.ac.uk/geologyofbritian/home.html); Geological Survey of England and Wales, Sheet 302
  - Horsham, 1:50,000 scale; Environment Agency (EA) Groundwater Vulnerability
  - mapping, 1:100,000 scale); Groundsure GeoInsight Report (geological and hydrogeological information provided by the BGS and EA;

- mapping);
- reports;
- a walkover survey.

## **Baseline Information**

## Site History

2.1.1 Table 2.1.1.

2

2.1

#### Table 2.1.1: Site History

| Date                | Description       |
|---------------------|-------------------|
|                     | The site compr    |
|                     | hedgerows with    |
|                     | present across    |
|                     | north of the Pro  |
| From                | across the Proj   |
| 1870                | the north of the  |
|                     | gasometer wer     |
|                     | and south of th   |
|                     | South Coast Ra    |
|                     | where Gatwick     |
| From                | An unnamed ro     |
| 1879                | approximately i   |
| 1079                | A nursery was     |
| By 1896             | Gatwick Race      |
| Dy 1090             | east with orcha   |
|                     | Gatwick Race      |
| By 1913<br>to 1920s | and residential   |
|                     | unnamed road.     |
|                     | pump were ind     |
|                     | south west of the |
|                     | additional track  |
|                     | the centre of th  |
|                     | 1                 |

## Our northern runway: making best use of Gatwick

Groundsure EnviroInsight Report (landfills and other contaminative land use information provided by the EA, local planning authorities and the BGS);

Groundsure Envirolnsight Report (recent and historical OS

previous geo-environmental investigation and assessment

Local Planning Authority records; Sussex Geodiversity Partnership records; and

A site history for Gatwick Airport has been established through review of historical mapping. A brief summary is provided in

> rised numerous fields bound by trees and th wooded areas. A number of farms were the site. Charlwood Park was present in the oject site. Several rivers and tributaries ran ect site. A large 'Fish Pond' is indicated in Project site. An engine tower and re indicated to the north of Timberham Lodge he Fish Pond. The London, Brighton and ailway ran north to south through central site Station is identified.

oad bisected the site, orientated north to south.

present in the south west of the site in 1895. Course had been constructed in the north ards indicated in the south east. Course was now labelled as a Golf Course

dwellings were now present along the By 1914, a number of cottages and a wind licated across Westfield Common in the he site. Between 1914 and 1919, numerous s were indicated along the rail line through e site.

# G LONDON GATWICK

| Date              | Description   | Date          | Description  |   | 3.1: Geolo            | уgy  |
|-------------------|---|---------------|--|---|-----------------------|--|
| 1930s to<br>1940s | The Project site had predominantly been developed as an aerodrome. By 1946, numerous possible drains and/or   |               | Land drains were indicated to divert into a surface water<br>feature in the north, and embankments had been  | Strata                                    |                       | Description  |
| 1950s             | ditches were indicated across the west of the Project site.Major airport development had occurred by this time.However, no substantial development was indicated in the<br>east of the site.Various industrial and commercial land uses were indicated  |               | constructed south of Charlwood Road, and along the<br>eastern edge of the River Mole. By 1989, the surface water<br>feature in the north, adjacent to Charlwood Park<br>Farmhouse, had been potentially infilled and developed<br>with several carparks. An electrical substation was            | Alluviun                                  | n                     | sand, and<br>parts of th<br>associated<br>(likely ass<br>up to seve  |
|                   | around the airport including 'Works' (Crawley Sewage<br>Treatment Works). Crawter's Brook and the River Mole<br>were indicated to have been partially culverted under the<br>airport development. The course of Crawter's Brook was<br>indicated to have been diverted by approximately.1965. | From<br>1980s | indicated in the west of the site along with possible bunded<br>areas (likely associated with the fire training area). The<br>eastern most roundabout (named Airport Way Roundabout<br>East) and several commercial buildings have been<br>constructed including a computer centre and a further | Head D                                    | eposits               | This strate<br>sand, and<br>small area<br>very limite                |
| From<br>1960s     | From Several farms across Westfield Common were no longer   |               | electrical substation. Further car parking areas had been<br>constructed in the south east. Further expansion of the<br>airport had occurred by this time, including main access<br>roads (Airport Way Roundabout West) and South Terminal   | River Terrace<br>Deposits (River<br>Mole) |                       | This strate<br>gravel and<br>the west,<br>to several                 |
|                   | renamed Gatwick Airport Station by 1961 and the A23 and A217 were first shown at this time. The central southern portion of the site was labelled as Gatwick Airport between 1961 and 1963.   |               | Satellite Pier, and fuel depots in the north east. Large<br>embankments were identified to the north of the North<br>Terminal Building along with Pier 5 and ancillary buildings /<br>areas associated with the airport. A fire station was  | Weald (<br>Formati                        |                       | This stratu<br>seams of<br>east of the<br>south of the<br>beneath th |
|                   | Further development of the airport had occurred. The runways had been extended across Westfield Common and  |               | indicated in the central southern area of the airport development by around 1987.  | Upper                                     |                       | This stratu  |
|                   | the traffic control tower was now indicated.<br>The extensive drainage and balancing pond network, and<br>embankments were indicated to be present from around  | From<br>2000s | A reservoir bound by embankments was indicated in the<br>south east (adjacent to Crawley Sewage Treatment Works).<br>Further expansion/development of the North Terminal area  |   | lge Wells<br>ormation | the far southickness.  |
|                   | 1973. Between 1973 and 1978, a Timber Yard was<br>indicated in the south east corner of the site along with a   |               | had occurred.  | 2.3.2                                     | -                     | logical Sites<br>ical Sites (L                                       |
| From              | Greyhound Training Track. By 1976, the M23, roundabouts and car parks have been constructed to the east of the  | 2.2<br>2.2.1  | Site Walkover<br>A site walkover was undertaken on the 25 September 2019, the  | 2.3.3                                     |                       | e is located<br>arding Area  |
| 1970s             | Project site with embankments either side. The M23 was indicated running westerly from the east into the A23. Main  |               | findings of which are presented in detail within Annex 2.  | 2.3.4                                     | Further               | details on s<br>ations carrie  |
|                   | roads had been constructed into the north east and central area of the Project site by around 1976. Further car parks   | 2.3           | Environmental Setting  |   |                       | vious Grour  |
|                   | and a large balancing pond were indicated to be present   |               | Geology  |   |                       | geology  |
|                   | alongside the River Mole in the north east of the site. The<br>London Road (A217) had become more established in the<br>1970s. By 1977 the Fish Pond in the north of the site was<br>no longer identified as present (potentially infilled).  | 2.3.1         | The stratigraphic sequence beneath the Project site is shown in Table 2.3.1 and on <b>ES Figure 10.6.1 and ES Figure 10.6.2</b> (Doc Ref. 5.2).  | 2.3.5                                     | The aqu<br>in Table   | uifer classifi<br>e 2.3.2.   |

## Our northern runway: making best use of Gatwick

#### cription and Approximate Thickness

stratum is indicated to comprise clay, silt, , and gravel. Indicated to be present across of the west and north of the site (likely ociated with the River Mole) and also in the east ly associated with Gatwick Stream). Likely to be several metres in thickness, where present. stratum is indicated to comprise clay, silt, , and gravel. Only indicated to be present in a area in the centre of the site. Likely to be of limited thickness, where present.

stratum is indicated to comprise sand and el and is indicated to be present across parts of west, centre and east of the site. Likely to be up everal metres in thickness, where present.

stratum is indicated to comprise mudstone with ms of clay-ironstone in the south east and far of the site. It is indicated to be absent in the far h of the site. Likely to be of significant thickness eath the site.

stratum is indicated to comprise sandstone mudstone and is only indicated to be present in far south of the site. Likely to be of significant ness.

Sites of Special Scientific Interest (SSSIs) or Local tes (LGSs) are located within 1 km of the site.

ated within a Brick Clay Resource Mineral Area, relating to the Weald Clay Formation.

s on site specific geology, based on site carried out across the site to date are provided in Ground Investigations section.

assification for each geological stratum is presented



#### Table 2.3.2: Aquifer Classification

| Strata                                  | Aquifer Classification             |
|---|------------------------------------|
| Alluvium                                | Secondary A Aquifer                |
| Head Deposits                           | Secondary Undifferentiated Aquifer |
| River Terrace Deposits (River Mole)     | Secondary A Aquifer                |
| Weald Clay Formation                    | Unproductive Stratum               |
| Upper Tunbridge Wells Sand<br>Formation | Secondary A Aquifer                |

- 2.3.6 The site is not located within a Source Protection Zone and there are no potable groundwater abstraction licences within the vicinity of the Project site.
- 2.3.7 One active groundwater abstraction license is recorded approximately 1 km south of the airport boundary. This is licensed for general usage (non-potable) with a permitted maximum annual volume of 47,450 m<sup>3</sup> and maximum daily volume of 130 m<sup>3</sup>.
- One private water supply (PWS) is located approximately 340 m 2.3.8 northeast of the Project site. This is for gardening supply at a single property.
- 2.3.9 Further details on site specific hydrogeology, based on site investigations carried out across the site to date are provided in the Previous Ground Investigations section below.

#### Hydrology

- 2.3.10 The main watercourse flowing through the site is the River Mole. It flows from the south and is culverted under both the main runway and existing northern runway. Upon exiting the culvert, it forms the western and northern boundary of the airport before heading north away from the airport at Hookwood.
- 2.3.11 Tributaries of the River Mole including Crawter's Brook, the Gatwick Stream, Man's Brook, Burstow Stream and Westfield Stream all flow through or close to the site.
- 2.3.12 The study area is located within a Surface Water Nitrate Vulnerable Zone (NVZ) and a Surface Water Safeguard Zone (SgZ). A NVZ is an area of land draining into water known to be polluted by nitrates. A SgZ is an area that influences the water quality at water abstraction sites at risk of failing the drinking water protection objectives.
- There are no surface water or potable surface water abstraction 2.3.13 licences within the vicinity of the Project site.

#### **Environmental Information**

2.3.14 Industrial land uses, landfills and other waste facilities, and pollution incidents recorded on site and within an approximate 500 metre buffer are presented in Table 2.3.3.

#### Table 2.3.3: Environmental Data

| Environmental Data                               | Approx.<br>Distance<br>and<br>Direction |
|--|---|
| Part A1 and IPPC Authorised Activities           |   |
| Installation Name and Detail                     |   |
| Shell Hydrogen Refueling Station – issued 2017   | On site -<br>north                      |
| Gatwick Power Station – issued 2006              | On site -<br>south                      |
| Crawley Sewage Treatment Works CHP – issued 2010 | Adjacent –<br>south east                |
| Control of Major Accident Hazards                |   |

#### Name and Detail

| Shell UK Oil Products Ltd – Gatwick Fuel Farm – | On site - |
|---|-----------|
| Upper Tier                                      | north     |

#### **Registered Waste Sites**

| Name and Description                                 |                |
|--|----------------|
| Gatwick Waste Care Centre – Special Waste Transfer   | On site -      |
| Station - <25,000 tonnes – issued 2010               | central        |
| Austins Land – Landfill accepting Non-Biodegradable  | On site - east |
| Wastes - >25,000 to <75,000 tonnes - issued 1978     | On site - east |
| Platinum International Ltd – Metal Recycling Site -  | 90 metres -    |
| <25,000 tonnes – issued 2017                         | south          |
| Crawley Sewage Treatment Works – Landfill - <25,000  | Adjacent –     |
| tonnes – issued 2013                                 | south east     |
| DJ Grab Services Ltd – Physical Treatment Facility - | 50 metres -    |
| >25,000 to <75,000 tonnes – issued 2016              | north          |
| Simmonds Donald Richard Thomas – Metal Recycling     | 140 metres -   |
| Site - <25,000 tonnes - issued 1994                  | east           |
| Jupp Peter – Treatment of waste to produce soil -    | 280 metres -   |
| <25,000 tonnes – issued 2013                         | east           |

#### **Environmental Data**

United Grab Hire Ltd - Phy <25,000 tonnes - issued 2

#### National Incidents and R

#### **Impact Details**

Significant impact to Gatwi substance - 1999

Major impact to water - Lis

```
Major impact to water - Lis
and detergents) - 2002
Major impact to water - Lis
(biodegradable material or
Major impact to water - Lis
materials) - 2017
Significant impact to land
(oil or fuel) - 2014
Significant impact to water
(unspecified) - 2016
```

Significant impact to water fuel oils) - 2002

**Historical Landfill Sites** 

Name and Description

```
Gatwick Brickworks - inert
```

```
Blackcomer Wood - inert
```

\* Significant/major incidents identit

```
2.3.15
          ES Figure 10.6.3 (Doc Ref. 5.2).
```

|                                     | Approx.<br>Distance<br>and<br>Direction |
|-------------------------------------|---|
| ysical Treatment Facility -<br>2013 | 390 metres -<br>east                    |
| Records of Pollution*               |   |
|                                     |   |
| vick Stream – List 1                | On site –<br>north east                 |
| ist 2 substance - 2001              | On site –<br>south west                 |
| ist 2 substance (surfactants        | On site -<br>north                      |
| ist 2 substance<br>r waste) - 2018  | On site -<br>north                      |
| ist 2 substance (sewage             | On site - east                          |
| and water – List 2 substance        | 20 metres -<br>south                    |
| r – List 2 substance                | On site –<br>south east                 |
| r – List 2 substance (gas and       | 90 metres -<br>east                     |
|                                     |   |
|                                     |   |
| rt waste – 1983 to 1984             | 240 metres<br>north                     |
| waste - 1976                        | 330 metres south east                   |
| ified only                          |   |

A number of potential sources of contamination have also been identified from historical mapping. Potential sources of contamination are shown as potential areas of concern (PAOC) in



|        | Ground Stability  | 2.3.25  | The Alluvium has been encountered up to approximately 2.9 metres in thickness with an average thickness of  |        | Soil and Ground<br>Previous Invest  |  |
|--------|---|---|---|--------|---|--|
| 2.3.16 | The site is indicated to have the potential for small scale<br>underground mining in relation to iron ore.  | approximately 1 metre. Localised layers of peat were identified |   | 2.3.35 | Historical soil and   |  |
| 2.3.17 | Areas at moderate risk for compressibility are present across the site which appear to correspond to BGS mapped areas of Alluvium.  | 2.3.26  | within these deposits.<br>The River Terrace Deposits were reported to be up to 1.1 metres<br>thickness where present.   |        | previous investig<br>assessment crite<br>using historical g                     |  |
| 2.3.18 | A moderate risk of slope instability has been identified for a small  |   | Solid Geology   |        | exploratory holes<br>where developm   |  |
|        | area along the A23 embankment.  | 2.3.27  | The Weald Clay Formation has been encountered across the site   | 2.3.36 | In order to asses   |  |
|        | Introduction a weathered upper horizon typically comprising a stiff clay.   |   | 35.5 metres (unproven). This comprised mudstone/siltstone with  |        | contaminants of<br>Levels (S4UL) fo   |  |
|        |   |   |   |        | Land Quality Mar  |  |
| 2.3.19 |   |   | Site Specific Hydrogeology  |        | Health in 2015 (N   |  |
|        | undertaken across the Project site. A summary of the reports available is provided in Annex 3i and the location of the  | 2.3.28  | Shallow groundwater was generally identified between<br>approximately 0.8 metres and 3 metres below ground level (bgl)  |        | copyright notice S4UL3177.  |  |
|        | exploratory holes shown in <b>ES Figure 10.6.4</b> (Doc Ref. 5.2).<br>Extracts from two recent project specific ground investigations<br>are provided in Annex 3ii.   |   | within the Made Ground, superficial deposits or weathered Weald Clay Formation.   | 2.3.37 | The redevelopm scheme and the   |  |
|        |   |   | 2.3.29 Groundwater was identified to generally be perched and   |        | been used.  |  |
|        | Site Specific Geology   | 0.0.00  | discontinuous with these deposits.  | 2.3.38 | A notable exclusion S4UL for lead, the  |  |
| 2.3.20 | Topsoil<br>Topsoil was encountered within Museum Field to depths of<br>between 0.25 metres and 0.40 metres.   | 2.3.30  | Deeper groundwater was identified within borehole wells<br>monitored as part of the recent highways ground investigation to<br>7.21 metres bgl within Made Ground, superficial deposits or<br>weathered/fractured Weald Clay Formation. |        | selected, publish<br>are based on the<br>concern, rather th                     |  |
|        | Made Ground   |   | Reported Evidence of Contamination  |        | the derivation of   |  |
| 2.3.21 | Made Ground has been encountered across the majority of the site, averaging approximately 1 m thickness (generally <2 metres). Localised deeper Made Ground was encountered at between 3 metres and 3.9 metres.   | 2.3.31  | In 2013, an investigation of a fuel leak around Pier 4 (Atkins, 2013) was undertaken due to observations of fuel impacted flood water and free phase contamination within a utilities chamber.  | 2.3.39 | minimal level of r<br>The site is locate<br>Alluvium and Riv<br>groundwater ana |  |
| 2.3.22 | A greater thickness of 6.45 metres was encountered directly west<br>of the North Terminal Building which is considered to be a result<br>of the removal of superficial deposits associated with the original<br>course of the Gatwick Stream during construction of Pier 5. | 2.3.32  | The investigation identified hydrocarbon impacted soils and<br>groundwater with the potential source attributed to underground<br>fuel lines. It is not known if any remediation was completed<br>following this investigation.         |        | Quality Standard<br>not available, the<br>the absence of b<br>Organisation (WI  |  |
| 2.3.23 | Additionally, up to 5 metres thickness was encountered west of  | 2.3.33  | In 2017, a ground investigation at the Boeing hangar identified loose asbestos fibres (chrysotile) within a sample of shallow   | 2.3.40 | Screening criteria<br>groundwater are   |  |
|        | the North Terminal roundabout and up to 7.3 metres at the location of the Airport Way roundabout, considered to be associated with the highways construction.   |   | Made Ground and hydrocarbon impacted perched shallow<br>groundwater along with elevated Volatile Organic Compounds<br>(VOCs) in soil gas samples.   | 2.3.41 | The available ground investigation  |  |
|        | Superficial Deposits  | 2.3.34  | Activities within the firefighting area have involved the burning of  | 2.3.42 | It is of note that a  |  |
| 2.3.24 |   |   | pools of kerosene fuel and gas in two separate basins.  |        | the northern runv<br>associated with c  |  |
|        | Deposits have been encountered across the site associated with former and existing watercourses. These deposits appear to have  |   | Firefighting foam is used to extinguish the fires.  |        | Human Health R  |  |
|        | been commonly excavated to facilitate airport development.  |   |   | 2.3.43 | Soil sample cher<br>screening criteria  |  |

## Indwater Contamination Encountered as Part of estigation

and groundwater data obtained as part of the tigations have been compared to contemporary riteria, where available. This has been undertaken I ground investigation data associated with les located within those parts of the Project site oment is proposed.

ess risks to future site users, concentrations of of concern have been compared to Suitable 4 Use for Human Health Risk Assessment published by Management: Chartered Institute of Environmental is (Nathanail et al., 2015). In accordance with the se the Publication Number for RPS Group is

ment of the Project site comprises a commercial nerefore, S4ULs for a commercial land use have

usion from the S4ULs is lead. In the absence of a , the Category 4 Screening Level (C4SL) has been ished by DEFRA in 2014. It is noted that the C4SL the acceptance of a low level of toxicological er than the more conservative standard adopted in of S4ULs, which are based on a tolerable or of risk.

ated above Secondary A Aquifers relating to the. River Terrace Deposits. Therefore, the results of the nalysis have been compared with Environmental ards (EQS) freshwater values and where these are the UK Drinking Water Standard (DWS) values. In f both of the aforementioned World Health WHO) values have been used.

eria used for the protection of human health and re provided in Annex 4.

ground gas data included as part of historical gations has been qualitatively assessed.

at a number of boreholes located within the area of unway recorded a pungent odour, potentially h organic materials, within the Alluvium.

#### **Risk Assessment**

Soil sample chemical results have not exceeded the relevant screening criteria protective of future site users.



Controlled Waters Screening Assessment

- Table 2.3.4 details exploratory holes for which groundwater 2.3.44 samples have exceeded the relevant screening criteria.
- 2.3.45 Certain laboratory detection levels in samples used in previous ground investigations are higher than the screening criteria. However, for the purposes of a water quality screening exercise this is considered acceptable.



#### Table 2.3.4: Groundwater Chemical Results Exceeding Screening Criteria

| Project Element Report ID and date (refer Annex Exploratory Hole and (Target Contaminant and Concentration ( |           | Contaminant and Concentration (ug/I) (pH | Screening Crit              | ening Criterion (ug/I) - Exceedances in Bold |         |         |
|--|-----------|--|-----------------------------|--|---------|---------|
| 3i)  | 3i)       | Geology)                                 | in pH units)                | EQS  | DWS     | WHO ATO |
|  |           |  | Copper – 20                 | 1  | 2,000   | -       |
| Relocation of Fire Training Ground   | 11 - 1999 | TP11 (Made Ground)*                      | Nickel – 130                | 4  | 50      | -       |
|  |           |  | Nitrite – 1,400             | -  | 100     | -       |
|  |           |  | Cadmium – 1.3               | 0.08   | 5       | -       |
|  |           |  | Nickel – 99                 | 4  | 50      | -       |
|  |           |  | Lead - 5                    | 1.2  | 10      | -       |
|  |           |  | Selenium – 17               | -  | 10      | -       |
|  |           |  | Zinc – 18                   | 10.9   | 5,000   | -       |
| MA1 Main Contractor Compound   | 18 2010   | BH03 (Made Ground/ RTD (RPS              | Ammoniacal Nitrogen – 1,900 | 15   | -       | -       |
| MA1 Main Contractor Compound   | 18 - 2010 | interpretation)/ Weald Clay)             | Sulphate – 776,220          | 400,000                                      | 250,000 | -       |
|  |           |  | Nitrite - 110               | -  | 100     | -       |
|  |           |  | 1,1 Dichloroethane – 12     | NA   | NA      | NA      |
|  |           |  | Tetrachloroethene – 16      | 10   | 10      | -       |
|  |           |  | 1,4 Dichlorobenzene – 15    | 20   | -       | 0.3     |
|  |           |  | 1,2 Dichlorobenzene 48      | 20   | -       | 1       |
|  |           |  | Ammoniacal Nitrogen – 210   | 15   | -       | -       |
|  |           |  | MBAS – 90                   | NA   | NA      | NA      |
|  |           | NP1 (Moold Clay)                         | pH – 9.7                    | >9   | NA      | NA      |
|  |           | NB1 (Weald Clay)                         | Total Alkalinity – 72,000   | NA   | NA      | NA      |
|  |           |  | EPH (C10-C20) - 380         | -  | 10      | -       |
| MA1 Main Contractor Compound   | 17 - 2007 |  | EPH (C20-C30) – 40          | -  | 10      | -       |
| WAT Main Contractor Compound   | 17 - 2007 |  | MBAS – 270                  | NA   | NA      | NA      |
|  |           |  | Nickel – 5                  | 4  | 50      | -       |
|  |           | NB2 (Weald Clay)                         | Total Alkalinity – 260,000  | NA   | NA      | NA      |
|  |           | NDZ (WEald Clay)                         | EPH (C10-C20) – 1,200       | -  | 10      | -       |
|  |           |  | EPH (C20-C30) - 70          | -  | 10      | -       |
|  |           |  | 1,1 Dichloroethane – 5      | NA   | NA      | NA      |
|  |           |  | pH – 9.1                    | >9   | NA      | NA      |
| Taxiway Whiskey-Victor-Zulu  | 36 - 2013 | WS19 (Clay)*                             | Potassium – 130,000         | -  | 12,000  | -       |
|  |           |  | Manganese – 8,800           | 123  | 50      | -       |

NA = not available

\*Groundwater sample taken as grab sample

2.3.46 Exceedances of screening criteria for a number of contaminants of concern, including heavy metals, hydrocarbons and VOCs, have been identified within perched/groundwaters.

2.3.47 Table 2.3.5 identified exploratory holes for which soil leachate samples have exceeded the relevant screening criteria.



#### Table 2.3.5: Chemical Leachate Results Exceeding Screening Criteria

| Project Element  | Report ID and date | Exploratory Hole, Depth and         | Contaminant and Concentration (ug/l) | Screening Criter | on (ug/l) – Exceedances ir | n Bold |
|------------------|--------------------|-------------------------------------|--------------------------------------|------------------|----------------------------|--------|
| (refer Annex 3i) | (Geology)          | containing and concentration (agri) | EQS                                  | DWS              | WHO ATO                    |        |
|                  |                    |                                     | Fluoranthene – 0.22                  | 0.0063           | -                          | -      |
|                  |                    |                                     | Benzo(a)pyrene – 0.04                | 0.00017          | 0.01                       | -      |
|                  |                    |                                     | Chromium - 63                        | 4.7              | 50                         | -      |
|                  |                    |                                     | Copper - 30                          | 1                | 2,000                      | -      |
|                  |                    |                                     | Lead - 2                             | 1.2              | 10                         | -      |
|                  |                    |                                     | Nickel - 40                          | 4                | 50                         | -      |
|                  |                    | WS08 – 0.9 metres (Made Ground)     | Zinc - 200                           | 10.9             | 5,000                      | -      |
|                  |                    | WS09 – 0.9 metres (Made Ground)     | Fluoranthene – 0.1                   | 0.0063           | -                          | -      |
|                  |                    | WS05 – 2.15 metres (Made Ground)    | Chromium - 28                        | 4.7              | 50                         | -      |
|                  |                    |                                     | Nickel - 26                          | 4                | 50                         | -      |
|                  |                    | Zinc - 66                           | 10.9                                 | 5,000            | -                          |        |
|                  |                    | Ethylbenzene - 69                   | -                                    | -                | 2                          |        |
|                  |                    | m/p Xylene - 270                    | 30                                   | -                | -                          |        |
|                  |                    | TPH (C6-C8 aliphatic) – 2,600       | -                                    | 10               | -                          |        |
| harlie Box       | 31 - 2013          |                                     | TPH (C8-C10 aliphatic) – 14,000      | -                | 10                         | -      |
|                  |                    |                                     | TPH (C8-C10 aromatic) – 4,800        | -                | 10                         | -      |
|                  |                    |                                     | TPH (C8-C10 aliphatic) – 1,800       | -                | 10                         | -      |
|                  |                    |                                     | Chromium - 10                        | 4.7              | 50                         | -      |
|                  |                    |                                     | Copper - 60                          | 1                | 2,000                      | -      |
|                  |                    |                                     | Lead - 3                             | 1.2              | 10                         | -      |
|                  |                    |                                     | Nickel - 10                          | 4                | 50                         | -      |
|                  |                    | WS06 – 0.9 metres (Made Ground)     | Zinc - 66                            | 10.9             | 5,000                      | -      |
|                  |                    |                                     | Fluoranthene – 1.4                   | 0.0063           | -                          | -      |
|                  |                    | Benzo(b)fluoranthene – 0.47         | 0.00017                              | -                | -                          |        |
|                  |                    |                                     | Benzo(k)fluoranthene – 0.63          | 0.00017          | -                          | -      |
|                  |                    |                                     | Benzo(a)pyrene – 0.54                | 0.00017          | 0.01                       | -      |
|                  |                    |                                     | Indeno(123-cd)pyrene – 0.38          | 0.00017          | -                          | -      |
|                  |                    |                                     | Benzo(ghi)perylene – 0.4             | 0.00017          | -                          | -      |
|                  |                    | WS06 – 1.6 metres (Clay)            | TPH (C8-C10 aliphatic) – 590         | -                | 10                         | -      |

# G LONDON GATWICK

- 2.3.48 Slight hydrocarbon odours were noted within the Made Ground encountered at WS05 and moderate hydrocarbon odours at WS08. A slight organic odour was noted within the Made Ground encountered at WS06.
- 2.3.49 The identified exceedances indicate leachable concentrations of heavy metals and hydrocarbons. It is considered that the 2.3.58 exceedances for hydrocarbons are generally confined to the Made Ground and close to the boundary of the Made Ground/underlying Weald Clay Formation interface.
- 2.3.50 The results of leachate analysis suggest that the general quality of Made Ground identified on the site may represent a potential 2.3.59 source in the generation of low quality perched groundwater therein.
- 2.3.51 The locations of the soil, leachate and groundwater exceedances 2.3.60 are shown in ES Figure 10.6.5 (Doc Ref. 5.2).

#### Ground Gas Monitoring

- 2.3.52 Ground gas monitoring data is available from approximately seven previous phases of ground investigations. Elevated 2.3.61 methane (up to approximately 32.4 %), carbon dioxide (up to approx. 11%), carbon monoxide (up to approximately 313 parts per million (ppm)) and depleted oxygen have been recorded in various parts of the site together with high ground gas flow rates (up to 43.1 litres per hour (I/hr)).
- 2.3.62 2.3.53 Additionally, soil vapour sampling recorded elevated hydrocarbon vapours during a ground investigation for the construction of the Boeing hangar.
- Potential sources of elevated ground gas were attributed to the 2.3.54 infilled balancing pond at the North Terminal and a former fuel line at the South Terminal.
- 2.3.55 Characteristic Situations (CS) assigned to areas across the 3.1 Project site ranged between CS1 (very low risk) and CS3 (moderate risk). The CS is determined by the modified Wilson 3.1.1 and Card classification (CIRIA, 2007). The method uses both gas concentrations and borehole flow rates to define a CS for a site based on the limiting gas volume flow for methane and carbon dioxide.

#### **Unexploded Ordnance**

2.3.56 The risk of Unexploded Ordnance (UXO) has been reported for Gatwick Airport and a summary provided below.

UXO Hazard Summarv

2.3.57 The main sources of UXO hazard arise from munitions storage/disposal activities undertaken at Gatwick and in the

- surrounding area during and immediately after World War II. There were munitions supply depots surrounding Gatwick Airport supporting the Royal Air Force (RAF), Home Guard, Special Operations Executive (SOE) and the regular Army prior to the D-Day invasions in 1944.
- At the end of World War II, some of the unused munitions at the depots were disposed of locally. This included ordnance returned 3.1.3 to the depots which were not required in combat but were primed and fused.

#### UXO in Made Ground

- Post-World War II, during the extension of Gatwick Airport, significant earthworks were undertaken in construction of the airfield.
- A large number and wide range of live ordnance was found when excavating within Made Ground across much of the airfield. There is consequently a potential for UXO to be present within the Made Ground across the airport and just outside the airfield perimeter, as proven by these post-World War II UXO finds.
- Records of finds to date indicate that such ordnance is likely to comprise close combat munitions such as grenades, mortars, smoke bombs, small arms ammunition, Projector, Infantry, Anti-Tank (PIATs) alongside anti-tank mines and a variety of other ammunition.
- The UXO hazard is considered to be confined to the Made Ground. However, potential for some localised munitions stores dating from World War II buried at shallow depth in the natural ground cannot be totally discounted.

## Preliminary Risk Assessment

#### Introduction

3

- An outline conceptual site model (CSM) consists of an appraisal of the source-pathway-receptor 'contaminant linkages' which is central to the approach used to determine the existence of 'contaminated land' according to the definition set out under Part 2A of the Environmental Protection Act 1990. For a risk to exist (under Part 2A), all three of the following components must be present to facilitate a potential 'pollutant linkage'.
- Source referring to the source of contamination (Hazard).
- Pathway for the contaminant to move/migrate to receptor(s).
- Receptor (Target) that could be affected by the contaminant(s).

| ~  | 4 0 |  |
|----|-----|--|
| 3. | 1.2 |  |

3.2

3.2.1

- **Potential Sources**

### **On-site - Existing**

#### Table 3.2.1: Potential Areas of Concern (On Site - Existing)

| PAOC ID     | Name   | Activities  |  |  |  |
|-------------|--|---|--|--|--|
| On Site - E | On Site - Existing                                 |   |  |  |  |
| 1           | Enterprise<br>rent-a-car,<br>Europcar and<br>Herts | Maintenance of hire vehicles, car wash<br>and vehicle refueling (three individual<br>refueling points). Potential petrol and<br>diesel underground storage tanks<br>(USTs). |  |  |  |
| 2           | Europcar   | Maintenance of hire vehicles, vehicle<br>refueling. Potential petrol and diesel<br>USTs.  |  |  |  |
| 3           | Avis   | Maintenance of hire vehicles, car wash.<br>Potential diesel and petrol USTs.  |  |  |  |
| 4           | BP petrol filling station (PFS)                    | PFS – petrol and diesel USTs.   |  |  |  |
| 5           | BA hangar<br>(Hangar 6)                            | Servicing of aircraft. Foam release area.   |  |  |  |
| 6           | Babcock<br>warehouse                               | Engineering works, Potential aircraft de/anti-icing practice.   |  |  |  |
| 7           | Shell PFS  | PFS – petrol and diesel USTs.   |  |  |  |
| 8           | Stands 4 and 5                                     | Maintenance of aircraft, storage of waste fuel, chemicals, and oils.  |  |  |  |
| 9           | Stand 130 to<br>136 and 140 to<br>145              | De/anti-icer above ground storage tanks (ASTs) and vehicle filling points.  |  |  |  |

Receptors include human beings, other living organisms, crops, controlled waters and buildings / structures. The National Planning Policy Framework (2021) used to address contaminated land through the planning process, follows the same principles as those set out under Part 2A. Further details on the Part 2A regime are presented within Annex 5.

Each stage of the potential pollutant linkage sequence has been assessed individually on the basis of information obtained during the walkover and desk study exercise.

Existing on-site potential sources of contamination representing PAOC are outlined in the following Table 3.2.1 with their locations indicated on ES Figure 10.6.3 (Doc Ref. 5.2).



| PAOC ID   | Name                                | Activities   |
|---|-------------------------------------|--|
| 10  | Fire Station                        | Maintenance vehicle storage area.  |
| 11  | TCR                                 | Repair of ground support vehicles, oil ATSs.   |
| 12  | Virgin Hangar<br>(Hangar 7)<br>/DHL | Waste treatment plant. Foam release area.  |
| 13  | Fuel Farm                           | Aviation fuel ASTs and potential underground pipeline.   |
| 14  | Wet tip                             | Sewage waste septic tank, lined storage lagoons for contaminated surface water runoff.                               |
| 15  | Fire Fighting<br>Area               | Fire training, propane AST and underground pipe, kerosene.   |
| 16  | Oscar Remote<br>Stands              | Refueling area and vehicle wash. Fuel<br>USTs, gas oil AST, soap AST, engine<br>and hydraulic oil ASTs, Adblue IBCs. |
| 17  | Stand 574                           | Maintenance of aircraft, storage of waste fuel, chemicals and oils.  |
| 18  | Stand 558                           | Large fuel spill (2019).   |
| 19  | Esso PFS                            | PFS – petrol and diesel USTs.  |
| 45 to 48,<br>50, 51, 53<br>to 55, 57,<br>60 to 77 | Electricity substations             | Electricity substations.   |
| 79  | Boeing hangar                       | Foam/firewater collection USTs.  |

- 3.2.2 Made Ground, likely to be present across the Project site as a result of construction/demolition activities, is also considered to represent a potential source of contaminants of concern.
- 3.2.3 Made Ground and superficial deposits (in particular Alluvium including peat and organic clays) may represent potential sources of ground gas generation.

#### **On-site** – Historical

3.2.4 Historical on-site potential sources of contamination representing PAOC are outlined in the following table with their locations indicated on ES Figure 10.6.3 (Doc Ref. 5.2).

| PAOC ID     | Name            | Activities                         |
|-------------|-----------------|------------------------------------|
| On Site - H | listorical      |                                    |
| 21          | Timber Yard     | Potential timber treatment.        |
| 22          | Fuel Depots     | Potential fuel tanks and pipework. |
|             | Smithy, Engine  |                                    |
| 00          | House and       | Smithy, Engine House and Tramway   |
| 23          | Tramway         | Sidings.                           |
|             | Sidings         |                                    |
| 24          | Railway Sidings | Railway Sidings.                   |
| 25 to 32    | Tank(s)         | Unknown use.                       |
| 00          | Tanks           | Unknown use, dates from 1960s /    |
| 33          |                 | 1970s.                             |
| 34          | Gasometers      | Potential pipework, sumps.         |
| 35 to 39    | Water           | Potential backfill unknown.        |
| 00 10 00    | bodies/ponds    | r otertial backing unknown.        |
| 40          | Balancing Pond  | Potential backfill unknown.        |
| 41          | Reservoir/pond  | Potential backfill unknown.        |
| 42          | Pit             | Potential backfill unknown.        |
| 43, 44,     | Electricity     | Electricity substations.           |
| 49, 52      | Electricity     |                                    |
| and 56      | SUDSLALIONS     |                                    |
| 80          | Former Fire     | Maintenance vehicle storage area.  |
| 00          | Station         |                                    |
| 81          | Former Fire     | Fire training.                     |
| 81          | Training Area   |                                    |

#### Off-site – Existing

Name

Texaco PFS

Crawley STW

PAOC ID

20

59

**Off Site - Existing** 

3.2.5 The existing off-site potential sources of contamination representing PAOC are outlined in the following table with the locations indicated on ES Figure 10.6.3 (Doc Ref. 5.2).

Activities

PFS - petrol and diesel USTs.

Sewage Treatment Works, CHP Plant.

Table 3.2.3: Potential Areas of Concern (Off-Site - Existing)

3.3.4

3.2.6

58

3.3

3.3.1

3.3.2

3.3.3

PAOC ID

**Off Site - Historical** 

Name

Pollution

Incident

- 3.3.5
  - construction.

### Off-site - Historical

The only existing off-site potential source of contamination representing a PAOC is outlined in the following table with its location indicated on ES Figure 10.6.3 (Doc Ref. 5.2).

#### Table 3.2.3: Potential Areas of Concern (Off-Site - Historical)

| Activities  |
|---|
|   |
| Significant impact to water – List 2. substance (unspecified) – 2016. |

#### **Potential Pathways**

The risks to future on site human health receptors via the pathways of dermal contact and ingestion will be mitigated in areas of proposed building or hardstanding as the pathway will be inactive. However, in any areas of proposed soft landscaping, the pathways of dermal contact and ingestion could still be active. In addition, there would be potential for the airborne migration of soil/dust from these areas.

There is the potential for ground gas (from on or off-site sources) and volatile contaminants of concern in soil and/or groundwater (if present) beneath the site to impact future site users where buildings are proposed via the inhalation pathway in indoor areas.

There is the potential for contaminants of concern (if present) beneath the site to migrate beneath the Project site via perched groundwater (if present) within granular horizons of the Made Ground, the superficial deposits and the weathered Weald Clay Formation. These contaminants may impact either controlled waters receptors or off-site human heath receptors via the dermal contact, ingestion and vapour inhalation pathways.

The surface water drainage system (where discharging to controlled waters) service corridors and/or subterranean infrastructure corridors could act as preferential pathways for the migration of any potential contaminants of concern.

The Weald Clay Formation is considered to be sufficiently impermeable and thick as to prevent the downward vertical migration of any contaminants within groundwater (if present) to the underlying Tunbridge Wells Sand Formation. This pathway may require consideration where piles that breach the thickness of the Weald Clay Formation are required as part of building



#### 3.4 **Potential Receptors**

- 3.4.1 Potential human receptors include future site users, construction 4.1 workers during site development works and off-site human receptors including workers, residents and general public users 4.1.1 on land within or adjacent to the Project site.
- 3.4.2 Elevated levels of ground gas and depleted oxygen levels have been detected as part of previous investigations. In addition, asbestos has been identified within Made Ground sampled from beneath the Project site. These findings would be taken into account in the design of further ground investigations and remediation strategy (where required) and Health and Safety risk assessments.
- 3.4.3 Head deposits are indicated to be present in a small area in the centre of the Project site. This stratum are classified as a Secondary Undifferentiated Aquifer. Given this classification, it is not considered to represent potential controlled waters receptor.
- 3.4.4 The Alluvium (indicated to be present across parts of the north, east and west) of the Project site and River Terrace Deposits (indicated to be present across parts of the west, centre and east) are classified as Secondary A Aquifers and, as such, are considered to be potential controlled waters receptors.
- 3.4.5 The Tunbridge Wells Sand Formation Secondary A Aquifer at depth is not generally considered a potential receptor given the upper level of protection afforded by the significant thickness of the overlying impermeable Weald Clay Formation. However, this stratum may become a potential receptor where piles that breach the thickness of the Weald Clay Formation are required as part of building construction.
- 3.4.6 Surface water receptors are considered to comprise the River Mole (flowing through the Project site) and its associated tributaries including Crawter's Brook, the Gatwick Stream, Man's Brook, Burstow Stream and Westfield Stream (which either flow through or close to the Project site).
- 3.4.7 A groundwater receptor comprising a private water supply (for gardening supply), located approximately 340 m northeast of the site, is considered a potential controlled waters receptor.
- 3.4.8 The groundwater abstraction located approximately 1 km to the south of the site, is not considered a potential receptor due to the distance and it is located hydraulically up-gradient from the Project site.

## **Conceptual Site Model**

4

#### **Outline Conceptual Site Model**

An outline CSM has been developed for the overall Project site on the basis of the site reconnaissance and desk study. It considers each element of the Project and identifies potential sources, pathways and receptors (ie potential pollutant linkages). The outline CSM is summarised in Table 4.1.1 below.



#### Table 4.1.1: Outline Conceptual Site Model

| Potential Source   | Contaminants of Concern   | Via             | Potential Pathways   | Linkage Potentially<br>Active? | Receptors   |
|--|---|-----------------|--|--------------------------------|---|
|  |   |                 | Direct contact/ingestion   | √1<br>✓                        | Future site users<br>Construction workers   |
|  |   | Soil            | Inhalation of volatiles  | ✓2<br>✓                        | Future site users<br>Construction workers   |
| Dn site – existing:  |   |                 | Airborne migration of soil or dust   | ✓1<br>✓1<br>✓1                 | Future site users<br>Construction workers<br>Off-site users   |
| PAOC 1 to PAOC 20, PAOC 45 to 48, PAOC 50, PAOC 51,<br>PAOC 53 to 55, PAOC 57, PAOC 60 to 77 | Metals, inorganics, hydrocarbons,<br>glycols, VOCs, SVOCs, PCBs,                                      |                 | Leaching of mobile contaminants  | ✓<br>✓<br>x <sup>3</sup>       | Alluvium Secondary A Aquifer<br>River Terrace Deposits Secondary A Aquifer<br>Tunbridge Wells Sand Formation Secondary A<br>Aquifer |
| <b>Dn site – historical:</b><br>PAOC 21 to PAOC 57, PAOC 44, PAOC 49, PAOC 52,<br>PAOC 56    | PFOS/PFAS, pesticides, herbicides and asbestos  |                 | Direct contact/ingestion   | ✓1<br>✓<br>✓                   | Future site users<br>Construction workers<br>Off-site users (includes PWS)  |
|  |   | Ground<br>water | Inhalation of volatiles  | ✓2<br>✓                        | Future site users<br>Construction workers<br>Off-site users   |
|  |   |                 | Lateral migration in permeable strata  | ✓<br>✓<br>✓<br>✓               | Alluvium Secondary A Aquifer<br>PWS<br>River Terrace Deposits Secondary A Aquifer<br>River Mole and associated tributaries          |
| <b>Off-site – existing:</b><br>PAOC 20 and 59  | Metals, inorganics, pesticides, PCBs,<br>treatment chemicals, pathogens,<br>hydrocarbons and asbestos | Ground<br>water | Lateral migration and subsequent inhalation of volatiles                     | ✓2<br>✓                        | Future site users<br>Construction workers   |
| <b>On and off-site:</b><br>Made Ground / natural strata (including superficial deposits),    | Carbon dioxide and methane  | Ground          | Vertical and lateral migration<br>and subsequent inhalation of<br>ground gas | √2<br>√<br>√                   | Future site users<br>Construction workers<br>Off-site users   |
| PAOC 35 to PAOC 42 and PAOC 14 and PAOC 58 or bio-<br>legradation of contamination           |   | Gas             | Explosive risks  | ✓ <sup>2</sup><br>✓<br>✓       | Future site users<br>Construction workers<br>Off-site users   |

1 Pathway will be inactive in areas of proposed building cover and hardstanding.

2 Pathway will be inactive in areas where buildings/confined spaces are not proposed.

3 This pathway may be active where piles that breach the thickness of the Weald Clay Formation are required as part of building construction.



#### **Conclusions and Recommendations** 5

- The Preliminary Risk Assessment has identified a number 5.1.1 historical and current potential sources of contamination representing PAOC across the Project site. The outline CSM produced as part of the assessment has identified a number of potential pollutant linkages associated with these sources that may be active where areas of the Project site are proposed for development.
- 5.1.2 In order to determine requirements for further assessment, the locations of PAOC have been overlain on the boundaries of the proposed development areas and are indicated on ES Figure 10.6.4 (Doc Ref. 5.2).
- 5.1.3 Recommendations for each development area have been derived in consideration of:
  - PAOC located within the development area boundary;
  - whether any buildings are proposed as part of the development (thus requiring consideration of the ground gas/vapour inhalation pathway); and
  - pre-existing site investigation data, where available.
- 5.1.4 A flowchart detailing the recommendation strategy for further works is provided in Annex 6 together with a table detailing recommendations for each development area.
- 5.1.5 Where recommended, the scope of any further ground investigation will be determined on a case-by-case basis and will be agreed with the Environment Agency/relevant local planning authority prior to its implementation. This is to be secured through 5.1.8 either the CoCP (ES Appendix 5.3.2: Code of Construction Practice (Doc Ref. 5.3) or through contamination management as a Schedule 2 requirement in the **Draft DCO** (Doc Ref. 2.1). Investigations may include some of the following: 5.1.9
  - drilling of boreholes or excavation of trial pits, targeting identified PAOC and pollutant linkages;
  - installation of groundwater and gas monitoring wells;
  - collection of soil and groundwater samples with chemical analysis of these samples for contaminants of concern;
  - ground gas monitoring from wells installed at the site; and
  - assessment of ground conditions and generic quantitative risk assessment of soil and groundwater chemical analysis results to determine the potential for the identified potential pollutant linkages to remain active upon development of the area.

Where appropriate, the investigations will include geotechnical testing to provide information on land stability and inform detailed design. Following the ground investigation, a remediation strategy will be implemented, where necessary. At this stage, the strategy is anticipated to comprise the following:

- the proposed remediation technique;
- implementation plan setting out the objectives and requirements of the remediation;
- validation sampling to confirm that remediation objectives have been met; and
- verification report.

5.1.6

5.1.7

- The scope of the remediation strategy will be agreed with the Environment Agency/relevant local planning authority prior to its implementation. On completion of the remediation works, a verification report will be sent to the Environment Agency/relevant local planning authority for approval. Subject to the scope of the remediation strategy, the following will be undertaken where appropriate to inform construction activities and the detailed design of the buildings:
  - piling risk assessment (in accordance with the Environment Agency guidance (Environment Agency, 2001 and February 2002) including control measures (where appropriate) to mitigate risk to controlled waters during piling installation;
  - detailed ground gas risk assessment and gas control measures during construction and to be incorporated into building design (where appropriate); and
  - groundwater and/or surface water monitoring.

The remediation strategy will be supported by a Project wide Material Management Plan prepared in accordance with CL:AIRE Code of Practice (CL:AIRE, 2011).

Where, further ground investigation is not recommended at this stage, a discovery strategy would be implemented for that development area as a watching brief for any unanticipated or previously un-encountered contamination. Those within the Project team responsible for land contamination would be contacted, where any significant visual or olfactory evidence of contamination, not previously encountered, is identified by construction workers during the development works. The following shall be considered indicative of soil contamination that may require remediation:

- the presence of free phase contamination (liquid oils);
- fibrous or cement bound materials (potentially asbestos containing materials);

•

5.1.10

5.1.11

5.1.12

6

or

This will be recorded within daily record sheets as set out within the Construction Environmental Management Plan.

Any construction activities in the area of this material would cease until an appropriate plan for dealing with the contamination has been put in place. Geology and Ground Conditions management measures are found within Section 7.4 of ES Appendix 5.3.2: Code of Construction Practice (Doc Ref. 5.3).

## References

### Legislation

2012).

Regulations 2015.

The Water Resources Act 1991

#### **Published Documents**

Airport Limited.

Available at:

British Standards Institution (2011) British Standard BS 10175:2011+A2:2017: Investigation of Potentially Contaminated Sites: Code of Practice.

British Standards Institution (2015) Code of practice for ground investigations (BS5930:2015).

British Standards Institution (2015) Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings (BS8485:2015+A1:2019).

significant staining and discolouration of exposed soils; and /

olfactory evidence of hydrocarbon contamination.

In terms of construction workers, prior to construction works taking place specific risk assessment will be required in line with Health & Safety requirements. This will enable control measures and appropriate levels of PPE to be implemented.

Contaminated Land (England) Regulations 2006 (as amended

Environmental Damage (Prevention and Remediation)

Atkins (June 2013) Geotechnical Interpretive Report, Gatwick

British Geological Survey [n/d] Geology of Britain Viewer [online]

https://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/view er.html Accessed: 18 December 2019



CIRIA Document C532 - Control of Water pollution from Construction Sites: Guidance for Consultants and Contractors (CIRIA, 2001b).

CIRIA Document C552 - Contaminated land Risk Assessment: A Guide to Good Practice (CIRIA, 2001a).

CL:AIRE (March 2011) Definition of Waste. Development Industry Code of Practice, Version 2.

Construction Industry Research and Information Association (CIRIA) (2007) C665: Assessing Risks Posed by Hazardous Ground Gases to Buildings.

DEFRA (2012) Environmental Protection Act 1990: Part 2A -Contaminated Land Statutory Guidance.

DEFRA (2014) Category 4 Screening Levels.

Department for Transport (2015) National Policy Statement for National Networks. [Online] Available at:

https://assets.publishing.service.gov.uk/government/uploads/syst em/uploads/attachment data/file/387223/npsnn-web.pdf

Department for Transport (2018) Airports National Policy Statement: New Runway Capacity and Infrastructure at Airports in the South East of England. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/syst em/uploads/attachment data/file/714106/airports-nps-newrunway-capacity-and-infrastructure-at-airports-in-the-south-eastof-england-web-version.pdf

Environment Agency (2001) Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention. NC/99/73.

Environment Agency (2020) Land Contamination: Risk Management.

Environment Agency (February 2002) Piling into contaminated sites. National Groundwater and Contaminated Land Centre.

Highways Agency (2008) Design Manual for Roads and Bridges. Vol 4. Geotechnics and Drainage. Section2. Earthworks, Part 2. HD22/08. Managing Geotechnical Risk.

Land Quality Management and Chartered Institute of Environmental Health (LQM/CIEH) (2015) S4ULs for Human Health Risk Assessment.

Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework (NPPF). [Online] Available at:

https://assets.publishing.service.gov.uk/government/uploads/syst em/uploads/attachment\_data/file/1005759/NPPF\_July\_2021.pdf

Nathanail, C.P., McCaffrey, C., Gillett, A.G., Ogden, R.C. & Nathanail, J.F. (2015) The LQM/CIEH S4ULs for Human Health Risk Assessment, Land Quality Press, Nottingham.

## Glossary

7

#### 7.1 Glossary of terms

#### Table 7.1.1: Glossary of Terms

| AST       Above ground Storage Tank         BGL       Below ground level         BGS       British Geological Survey         C4SL       Category 4 Screening Level         CHP       Combined Heat and Power         CS       Characteristic Situation         CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances         µg/l       Micrograms per litre | Term | Description                        |
|--|------|------------------------------------|
| BGL       Below ground level         BGS       British Geological Survey         C4SL       Category 4 Screening Level         CHP       Combined Heat and Power         CS       Characteristic Situation         CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances   |      |                                    |
| BGS       British Geological Survey         C4SL       Category 4 Screening Level         CHP       Combined Heat and Power         CS       Characteristic Situation         CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Quality Standard         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances   | AST  | Above ground Storage Tank          |
| C4SL       Category 4 Screening Level         CHP       Combined Heat and Power         CS       Characteristic Situation         CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  | BGL  | Below ground level                 |
| CHP       Combined Heat and Power         CS       Characteristic Situation         CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  | BGS  | British Geological Survey          |
| CHP       Combined Heat and Power         CS       Characteristic Situation         CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  |      |                                    |
| CS       Characteristic Situation         CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  | C4SL | Category 4 Screening Level         |
| CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  | CHP  | Combined Heat and Power            |
| CSM       Conceptual Site Model         DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  |      |                                    |
| DWS       Drinking Water Standard         EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  | CS   | Characteristic Situation           |
| EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  | CSM  | Conceptual Site Model              |
| EA       Environment Agency         EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  |      |                                    |
| EPH       Extractable Petroleum Hydrocarbons         EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances  | DWS  | Drinking Water Standard            |
| EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances   | EA   | Environment Agency                 |
| EQS       Environmental Quality Standard         ES       Environmental Statement         GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances   |      |                                    |
| ES Environmental Statement<br>GAL Gatwick Airport Limited<br>IBC Integrated Bulk Container<br>KM Kilometers<br>L/Hr Litres per hour<br>LGS Local Geological Site<br>MBAS Methylene Blue Active Substances  | EPH  | Extractable Petroleum Hydrocarbons |
| GAL       Gatwick Airport Limited         IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances   | EQS  | Environmental Quality Standard     |
| IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances   | ES   | Environmental Statement            |
| IBC       Integrated Bulk Container         KM       Kilometers         L/Hr       Litres per hour         LGS       Local Geological Site         MBAS       Methylene Blue Active Substances   |      |                                    |
| KM     Kilometers       L/Hr     Litres per hour       LGS     Local Geological Site       MBAS     Methylene Blue Active Substances   | GAL  | Gatwick Airport Limited            |
| L/Hr     Litres per hour       LGS     Local Geological Site       MBAS     Methylene Blue Active Substances   | IBC  | Integrated Bulk Container          |
| LGS     Local Geological Site       MBAS     Methylene Blue Active Substances  | KM   | Kilometers                         |
| MBAS Methylene Blue Active Substances  | L/Hr | Litres per hour                    |
|  | LGS  | Local Geological Site              |
|  |      |                                    |
| μg/l Micrograms per litre  | MBAS | Methylene Blue Active Substances   |
|  | µg/l | Micrograms per litre               |

| erm     | Description   |  |
|---------|---|--|
| IVZ     | Nitrate Vulnerable Zone                             |  |
| PAOC    | Potential Areas of Concern                          |  |
| РСВ     | Polychlorinated Biphenyl                            |  |
| PFAS    | Perfluoroalkyl substances                           |  |
| FOS     | Perflyorooctane sulphonic acid                      |  |
| PFS     | Petrol Filling Station                              |  |
| Н       | Potential of Hydrogen                               |  |
| TAI     | Projector, Infantry, Anti-Tank                      |  |
| PE      | Personal Protective Equipment                       |  |
| PM      | Parts per million                                   |  |
| WS      | Private Water Supply                                |  |
| AF      | Royal Air Force                                     |  |
| TD      | River Terrace Deposits                              |  |
| 4UL     | Suitable 4 Use Levels                               |  |
| gZ      | Safeguard Zone                                      |  |
| OE      | Special Operations Executive                        |  |
| SSI     | Site of Special Scientific Interest                 |  |
| TW      | Sewage Treatment Works                              |  |
| VOCs    | Semi Volatile Organic Compounds                     |  |
| PH      | Total Petroleum Hydrocarbons                        |  |
| IST     | Underground Storage Tank                            |  |
| IXO     | Unexploded Ordnance                                 |  |
| 'OCs    | Volatile Organic Compounds                          |  |
| VHO     | World Health Organisation                           |  |
| VHO ATO | World Health Organisation Appearance Taste<br>Odour |  |



## Annex 1

**Assessment Limitations** 



## A1.1 Phase 1 - Environmental Risk Assessment / Desk Study Environmental Review

A1.1.1

#### **General Notes**

- 1. A "desk study" means that no site visits have been carried out as any part thereof, unless otherwise specified.
- 2. This report provides available factual data for the site obtained only from the sources described in the text and related to the site on the basis of the location information provided by the Client.
- 3. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources.
- 4. The accuracy of maps cannot be guaranteed and it should be recognised that different conditions on site may have existed between and subsequent to the various map surveys.
- No sampling or analysis has been undertaken in relation to 5. this desk study.
- 6. Any borehole data from British Geological Survey sources is included on the basis that: "The British Geological Survey accept no responsibility for omissions or misinterpretation of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation".
- 7. Where any data supplied by the Client or from other sources, including that from previous site investigations, have been used it has been assumed that the information is correct. No responsibility can be accepted by RPS for inaccuracies in the data supplied by any other party.
- 8. This report is prepared and written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information, improved practices and changes in legislation may necessitate a reinterpretation of the report in whole or in part after its original submission.
- The copyright in the written materials shall remain the 9. property of the RPS Company but with a royalty-free perpetual licence to the Client deemed to be granted on payment in full to the RPS Company by the Client of the outstanding amounts.

- 10. The report is provided for sole use by the Client and is confidential to them, their professional advisors, no responsibility whatsoever for the contents of the report will be accepted to any person other than the Client. [Unless otherwise agreed]
- These terms apply in addition to the RPS "Standard Terms & Conditions" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms & Conditions, the said Standard Terms & Conditions shall prevail.) In the absence of such a written contract the Standard Terms & Conditions will apply.



## Annex 2

Walkover Observations



#### Site visit was completed of Gatwick airport on the 25th of September 2019 A2.1

#### Table A2.1: Summary of on site activities

| Section      | Description   |
|--------------|---|
| Site Layout: | <ul> <li>The site comprised Gatwick Airport and associated infrastructure including a number of hotels, offices and a railway station.</li> <li>The airport operations included two runways (main and central) located in the south of the site. A number of carparks, two commercial buildings, a British Airways Hangar a of the runways.</li> <li>The land to the far north west of the runway comprised a fire training ground with undeveloped, (likely agricultural) land beyond.</li> <li>The main airport operations area to the north of the runways comprised a Boeing Hangar, Virgin Hangar, a number of aircraft stands and a maintenance area in the north v parking further to the north west. The central north area comprised a number of taxiways and aircraft stands, a cargo centre, the fire station, storage areas, a fuel farm and east of the runways were further aircraft stands and taxiways, the two airport terminals and a number of offices and hotels.</li> <li>The airport also comprised an eastern area located beyond the railway line and A23, which comprised a number of car parks, vehicle hire offices and workshops, hotels, of</li> </ul>   |
| Activity /   | For ease of description the site has been separated into the below areas. Eastern area: This area is located to the east of the main airport, beyond the railway line and A23. The southern portion of the eastern area comprised woodland with two ponds in the so these are pollution treatment lagoons, where de-icer contaminated water will be discharged to Crawley Sewage Treatment Works). The center of the eastern area was occi including self-park south, south valet and valet courtyard, as identified on Figure 5.2.1b. The long stay car parks were accessed from Ring Road South. Also located adjace car parking areas (between self-park south robotics and the coach park on Figure 5.2.1b) were two buildings comprising maintenance areas occupied by Enterprise rent-a-maintenance of hire vehicles. The buildings were also noted to comprise car wash areas and vehicle refueling areas with three individual refueling points noted. Labelling o underground storage tanks of petrol were located below. Two further vehicles hire company maintenance areas were noted within the south valet car parking area. One (lo (Figure 5.2.1e) was occupied by Europcar and also appeared to include a refueling area with likely underground fuel storage tanks. An Avis vehicle maintenance area was also located in the east of the site to the south of the forecourt, leading from the south terminal. The maintenance area also appeared vehicles and included a car wash and vehicle refueling facilities with labelling on the dispensing pumps indicating both diesel and petrol underground tanks were present. The northern area of the east of the site comprised a multi-storey car park and forecourt area (leading via aboveground covered walkways to the south terminal), a Hilton H a drive in McDonalds and KFC restaurant and a petrol filling station operated by BP and associated car parking areas. |
| Operations:  | South of the runways:   |
|              | Car parking areas were located to the southwest of the runways which predominantly appeared to be utilised as long stay parking for customers. The south east of the runways park z on Figure 5.2.1b) with a material store to the north of the car park for storage of grit and other hardcore materials reported to be currently utilised for the development hangar was located adjacent to the east of the car park and was reported to be utilised for the servicing of aircraft. The hangar was not permitted to be accessed as part of comprise a warehouse / maintenance area on the airside side with offices to the rear. Two large above ground tanks were noted to the rear of the hangar and appeared to this was not confirmed. Further car parking and a warehouse noted to be occupied by Mitie (facility management) and Babcock (engineering services) were located to the servicing of de/anti-icing however only water was reported to be used.   |
|              | Northeast of the runways:   |
|              | The north east of the runway comprised the South and North Airport Terminals and associated piers and aircraft stands. Hotels, offices and commercial buildings were also east of the site including a police station and a Shell petrol filling station. The airside in the north east of the airport included small engineering areas (one of which was local another adjacent to stand 574. The engineering areas were utilised by each air firm for the maintenance of airplanes at the stands and included the storage of waste from the small amounts of chemicals and oils for use in airplane maintenance. The majority of the non-waste chemicals were noted to be stored on bunds or in bunded stores. Above ground de/anti-icer storage tanks and materials were stored in the area of stands 136 to 140 just north east of the runways.   |

## Our northern runway: making best use of Gatwick

and warehouse were located to the south

west with car parking areas for long stay nd further car parking areas. To the north

offices and fast food restaurants.

south (anecdotal evidence indicates that ccupied by a number of long stay car parks, cent to the Ring Road to the north of the a-car, Europcar and Herts for the on the refueling points indicated that located adjacent to the east of Pond G

ared to be utilized for the repair of hire

Hotel, a Marriott Hotel, two office buildings

nway included a staff car park area (car ent of a new taxiway. A British Airways of the site walkover but appeared to to be sprinkler water storage tanks, however e south east of the runways. A disused

so located in the landside area of the north cated to the south of stands 4 and 5) and the airplanes such as waste fuel and also

# G LONDON GATWICK

| Section                  | Description  |
|--------------------------|--|
|                          | Centre north of the runways:   |
|                          | A fire station and airside maintenance vehicle storage area were located to the immediate north centre of the runways. Further aircraft stands and a cargo centre (comprises present beyond this. The cargo centre occupants included Royal Mail, World Freight Service and Animal Aircare Ltd and TCR (air industry ground support equipment ser utilised for the repair of ground support vehicles.<br>Further car parking and a waste treatment plant occupied by DHL were located to the north of the Cargo Centre with a fuel farm comprising five large above ground tanks the far north. The aviation fuel was reported to be transported directly to the tanks via an underground pipeline. Access was not permitted to the fuel farm as part of the se a small waste area (referred to as the "wet tip") where sewage waste from the aircraft was disposed of to a septic tank. In addition, the waste area comprised two lined point the runways / external areas and contaminated water from the runways / external areas.  |
|                          | North west of the runways:   |
|                          | The far northwest of the runways included an area utilised by the fire service for training purposes with undeveloped, likely agricultural land beyond. Two dummy aircraft purposes. An above ground propane storage tank was present in the south west of the fire training area with beneath ground pipework supplying the large dummy aircraft around the fire service training area with a small pond on the southern edge. Additionally, anecdotal evidence indicates there are below ground tanks at the fire training area with a small pond on the southern edge. Additionally, anecdotal evidence indicates there are below ground tanks at the fire training ground tanks at tanks at the fire train |
|                          | The area to the north west of the runways also included a Boeing hangar, at that time under development and not yet in use, a Virgin hangar, aircraft stands and a mainter Figure 5.2.1a), including refuelling area for ground service vehicles and vehicle wash facilities. A large long stay car parking area was also located beyond the Virgin hangar. The majority of the airside vehicles on-site were noted to be electric powered with numerous recharging points located around the airport.   |
|                          | Slot drains were observed in the runway, taxiway and aircraft stand areas. The site representative reported that all drainage within the airside area and possible also the to a number of ponds located around the airport. The ponds then connect to a water treatment plant located in the north of the site, at Pond D, where the surface water is discharged to the River Mole.   |
| Drainage:                | The site representative reported that all drainage within the airside area can be controlled and either closed off or directed to a dedicated pond in the event of a spill.<br>A vehicle refuelling and adjacent car wash were located in the landside maintenance area (Oscar Remote Stands), surface water drains were noted surrounding the vehi<br>wash. It was not known where the drains discharged to or if an interceptor was present, however, the site representative reported that, similarly to all drainage on-site, the<br>treatment. Three adjacent drain covers were noted in the refuelling area vicinity indicating the potential presence of an interceptors.   |
|                          | Further refuelling areas and vehicle washes were noted in the eastern area of the site operated by vehicle hire firms. Dedicated surface water drainage was not noted in the areas in the east of the site excluding the Europear maintenance area adjacent to the east of Pond G where surface water drains were noted in the vicinity of the refuelling was present in these areas.  |
|                          | A septic tank for foul waste from the airplanes was reported to be located in the north of the site north of the fuel farms. This was reported to be collected and disposed of   |
|                          | Five above ground bulk storage tanks of aviation fuel were observed in the fuel farm in the north of the site. The capacity of the tanks was not provided, however, given the of litres. It was also not clear if the tanks extended below ground. The tanks were reported to be directly filled from an underground pipeline which was reported to extend was then reported to be connected to the airplane stands via underground pipework with at least one refuelling point at most aircraft stands. The fuel was reported to be high pressure.  |
| Bulk Storage /<br>Tanks: | A refuelling area for the fuelling of airside support vehicles was located in the maintenance area (Oscar Remote Stands) in the centre north of the site. The refuelling area points and five ventilation pipes indicated the presence of approximately five underground fuel storage tanks. The tanks were reported to contain diesel, petrol and gas of underground storage tank was noted with labelling indicating the tank was 29,100 litres in capacity. No other refill points were identified.   |
|                          | An above ground bulk storage tank of gas oil (48,500 litres capacity) was also noted in the Oscar Remote Stands area. The tank was noted to comprise an integrally bunch points / hose located behind a roller shutter door within the bund. No significant staining was noted in the area. An integrally bunded tank of Adblue was also noted.<br>A 6,500 litre aboveground storage tank reported to comprise soap (SC08 Stand Cleaner) was also noted in this area. The tank was located within a brick bund. The bund   |

## Our northern runway: making best use of Gatwick

prising of terraced warehouse units) were ervicing). The unit occupied by TCR was

nks for the storage of aviation fuel located in site walkover. Adjacent to the fuel farm was pools for the storage of surface water from

aft were located in this area for fire training raft in the centre. A land drain was noted ground which store runoff which may

ntenance area (Oscar Remote Stands on angar to the north west of the runways.

ne landside area operated by Gatwick drains r is treated and tested before being

hicle refuelling area and below the vehicle the drains entered an on-site pond for

in the vicinity of the vehicle hire maintenance lling area. It was not known if an interceptor

l of off-site.

their size it is considered to be in the millions end from a dedicated port to the airport. Fuel e piped through the underground pipework at

rea was noted to comprise eight dispensing oil. A refill point for an unleaded petrol

unded tank with the refill and dispensing

nd was not covered and was filled with an amination.



| Section                                      | Description   |
|--|---|
|  | Adjacent to the refuelling area in Oscar Remote Stands was a maintenance warehouse for the servicing of airside support vehicles. Three above ground tanks were note warehouse. The tanks were reported to comprise engine and hydraulic oil and were connected by aboveground pipework to refilling and dispensing points. A bunded exter bulk containers of Adblue were also noted.   |
|  | Two petrol filling stations were noted on site. A Shell operated PFS was located in the north east of the site, adjacent to the Premier Inn. The forecourt area of the Shell P number, capacity and contents of the underground tanks was not identified. The second PFS was located in the north east of the site adjacent to the McDonalds restaurant the refill points for the underground storage tanks indicated the presence of five tanks as below:  |
|  | <ul> <li>57,730 litres diesel;</li> <li>43,120 unleaded petrol;</li> <li>14,610 diesel;</li> <li>31,120 unleaded petrol; and</li> </ul>   |
|  | <ul> <li>14;610 unleaded petrol.</li> <li>Underground fuel storage tanks containing petrol and diesel are also considered likely to be present beneath the refuelling areas operated by vehicle hire companies in the is the potential for approximately ten underground tanks to be present between the five hire car facilities.</li> </ul>   |
|  | Above ground de/anti-icer tanks were noted in the centre of the site in the area of stand 130 to 145. The de/anti-icer tanks comprised four 80,000 litre tanks of ECO2 and de/anti-icing of the runways, taxi areas and aircraft stands. Above ground pipework connected to small generators was located between the tanks which was operated to icer when required, each vehicle was reported to hold 6,000 litres of de/anti-icer. Granular de/anti-icing material (Safegrip SF) was also stored in a covered area adjacent were utilised for the de/anti-icing of the runways with Type IV reported to be utilised for the de/anti-icing of planes. Three 80,000 litre above ground storage tanks of Type located in this area. Further above ground storage tanks of de/anti-icer for the aircraft were located in integrally bunded tanks to the south of the fuel farm. |
|  | The TCR maintenance area included two above ground oil storage tanks of 2,000 litre capacity. The tanks were located internally to the unit. Some staining of the underly Waste contaminated water from spills and similar events was reported to be cleaned up by a dedicated cleaning vehicle with a vacuum function with the contaminated water located in the north of the site immediately beyond the aviation fuel farm. The wet tip comprised two pools/pit which appeared to be concrete lined. One pool was for containing a waste tanker and disposed of off-site. The waste tanker was reported to be operated by Sweeptank.   |
| Waste:                                       | Contaminated mats and granules following a spill event were also stored in the wet tip area in a covered store in metal 205 litre drums located on plastic bunds. DHL were contaminated materials.<br>Containers (metal drums, boxes and intermediate bulk containers) of contaminated rags, waste oil filters, waste oil and waste chemical containers were noted on-site, sto airside vehicle maintenance area in Oscar Remote Stand and within the TCR maintenance warehouse.  |
|  | An above ground metal waste oil tank and intermediate bulk containers of adblue were located externally to the airside vehicle maintenance area. Both were reported to be<br>An above ground waste oil tank was also located internally to the TCR maintenance warehouse. The tank was reported to be approximately 2,000 litres in capacity. Containers of the collected by Oakwood.   |
| Electricity<br>Substations<br>/Transformers: | Electricity substations were reported to be present on site and were understood to be the responsibility of Gatwick Airport. The site representative was not aware of the low was noted in the south west and one in the east of the site, adjacent to Pond G The substation adjacent to Pond G was labelled as the responsibility of UK Power Network northern section of Car Park B.  |
| Visual Evidence<br>of<br>Contamination:      | The site representative reported that, on occasions, the refuelling of planes has resulted in small spills of fuel. Spill kits were located throughout the site and all airside sup with absorbent booms, granules and specialist clay to block drains.<br>A recent large fuel spill (in 2019) was reported to have occurred in the area of stand 558. The spill was the result of ground works damaging an aviation fuel pipe which capressure of the pipes. The airport fire service and airside support were reported to have attended the event.  |
| Statutory<br>Nuisance:                       | The site representative reported no knowledge of any statutory nuisances in relation to the site.   |
| Other Issues:                                | No Japanese Knotweed or Giant Hogweed (invasive plant species) were readily identified on or adjacent to the site at the time of the survey. (It should be noted that the ideand in areas of dense vegetation growth).  |

ted on a mezzanine level within the xternal store of drums of oil and intermediate

PFS was not accessed and therefore, the rant and was operated by BP. Labelling on

the east of the site. RPS considers that there

nd two 80,000 litre tanks of KONSIN for the to fill de/anti-icing vehicles with the de/antint to the tanks. Both ECO2 and KONSIN be IV for the de/anti-icing of planes were also

rlying hardstanding was noted.

water then disposed of in the wet tip area, ntaminated water and the other was for inated water was reported to be collected by

ere reported to collect the waste

stored in the air firm maintenance areas, the

be collected by DHL.

ntaminated waste from the TCR unit was

location of all the substations however one orks. .A large substation is located in the

support vehicles were noted to carry spill kits

caused a large geyser of fuel given the

identification can be limited by the seasons



#### The Surrounding Area

A2.1.1 The site is located in an area of mixed commercial, agricultural and residential area land uses. At the time of the site inspection, neighbouring land consisted of the following:

#### Table A2.2: Neighbouring Land Uses

| Direction | Description   |  |
|-----------|---|--|
| North:    | Agricultural land with residential properties beyond. |  |
| East:     | Agricultural land and residential properties.         |  |
| South:    | Agricultural land and industrial estate.              |  |
| West:     | Agricultural land and residential properties.         |  |

The River Mole was observed to run along the northern edge of the site



Previous Ground Investigation Reports Summary

## Annex 3



### Table A3.1: Summary of Existing Ground Investigation Reports

| No | Report Title  | GAL<br>Reference                  | Date       | In Genesis<br>Area?  | Purpose  | GI Scope  | Soil Samples?  | GW Samples?  | GW Level<br>Monitoring?<br>Long term? | Ground Gas<br>Monitoring?  | Interpretation of<br>Environmental<br>Results? |
|----|---|-----------------------------------|------------|--|--|---|--|--|---------------------------------------|--|--|
| 1  | A380 On Stand 125 – Site<br>Investigation Report<br>(appendix to document)                                      | 2A125-00-<br>C-911-SUR-<br>000001 | 14/03/2012 | N (Stand 125)  | Determine structural strength<br>of concrete and ability to<br>handle traffic  | 4 concrete cores<br>4 WS holes<br>4 DCP tests   | 2 (metals, total TPH,<br>PAH 16)   | Ν  | N                                     | Ν  | Ν  |
| 2  | Geotechnical Design<br>Report – Airfield<br>Operations Building (AOB)   | 2S169-XX-<br>C-XXX-<br>PDR-00007  | 04/04/2012 | N (AOB)  | GDR for new AOB  | 6 WS holes<br>2 GW/Gas MW   | Ν  | Ν  | Y (2 rounds -<br>March 2012)          | Y (2 rounds –<br>March 2012)   | N - No gas RA<br>undertaken                    |
| 3  | Airfield Taxiway Papa<br>November (P&N)–<br>Pavement Investigation<br>Test Report                               | 2AFLD-00-<br>C-911-SUR-<br>000001 | 17/04/2018 | N (taxiway<br>P&N – no plan<br>or coordinates<br>for locations of<br>core samples) | Pavement investigation   | 11 concrete cores   | N  | N  | N                                     | N  | N  |
| 4  | South Terminal Northern<br>Extension Structural<br>Assessment of Spare<br>Capacity in the Existing<br>Structure | 20206-XX-<br>S-247-BOD-<br>000026 | 05/06/2018 | N (extension to<br>Bloc hotel,<br>located in South<br>Terminal)                    | Structural assessment for<br>proposed extension to the<br>existing Bloc hotel, includes SI<br>and associated GDR (as<br>appendices to the main report) | 2 dynamic sampling and<br>RC follow on boreholes<br>2 GW MW<br>2 CPT<br>4 TP  | 2 (metals, speciated<br>PAH, phenol,<br>cyanide and<br>asbestos screen)                                      | Ν  | N                                     | N  | N  |
|    | Phase I Environmental<br>Site Assessment  | 10509471                          | June 2017  | N (Boeing<br>Hangar)   | Desk study prior to<br>construction of Boeing Hanger   | None – included review<br>of previous Arcadis SI<br>report  | NA   | NA   | NA                                    | NA   | NA   |
|    | Phase II Environmental<br>Site Assessment   | No<br>reference                   | June 2017  |  | SI prior to construction of<br>Boeing Hangar   | <ul> <li>19 WS</li> <li>2 surface water samples</li> <li>2 sediment samples</li> <li>4 TP</li> <li>12 vapour boreholes</li> <li>5 spoil heap samples</li> </ul> | 42<br>(metals, cyanide,<br>VOCs, SVOCs, PAH,<br>phenol, EPH,<br>asbestos, PCBs,<br>pesticides/<br>herbicides | 21 (metals, VOCs,<br>SVOCs and EPH)<br>Surface water were<br>also analysed for<br>cyanide, PCBS,<br>PFAS, PFOS and<br>PFOA | Y (1 round)                           | N but vapour<br>samples<br>collected<br>(ground<br>gases, TPH<br>and VOCs) | Y  |
| 5  | Focused Soil and<br>Groundwater Investigation<br>for PFAS   | 41525212                          | 09/11/2019 |  | Provide further information on PFAS, following Phase II SI   | 5 WS<br>5 MW<br>2 surface soil samples  | 12 (PFAS and asbestos screen)  | 4 (PFAS)   | Y (1 round)                           | N  | Y  |
|    | Phase 2 Gatwick Boeing<br>Hangar Geo<br>Environmental<br>Interpretative Report                                  | 20000-XX-<br>B-911-PDR-<br>000006 | July 2017  |  | SI prior to construction of<br>Boeing Hangar   | 15 RC boreholes<br>22 TP<br>22 CPT  | 46 (metals, cyanide,<br>speciated PAH,<br>banded TPH, VOCs,<br>AC and asbestos)<br>and 10 leachate tests     | 19 (metals,<br>cyanide, phenols,<br>speciated PAH,<br>TPH CWG and<br>VOC)  | Y (6 rounds<br>over 2.5<br>months)    | Y (6 rounds)   | Y  |
|    | GDR – Boeing Hangar   | 20760-00-C-<br>915-TDT-<br>000001 | 10/11/2017 |  | GDR to enable design of hangar   | 23 CPT<br>4 TP  | Ν  | Ν  | Ν                                     | Ν  | Ν  |



| No | Report Title   | GAL<br>Reference                        | Date              | In Genesis<br>Area?  | Purpose   | GI Scope  | Soil Samples?   | GW Samples?  | GW Level<br>Monitoring?<br>Long term? | Ground Gas<br>Monitoring? | Interpretation of<br>Environmental<br>Results? |
|----|--|---|-------------------|--|---|---|---|--|---------------------------------------|---------------------------|--|
|    | Gatwick Boeing Hangar -<br>Ground Investigation<br>Report                            | 20000-XX-<br>B-911-PDR-<br>000001       | February 2017     | Y (Code E<br>Hangar, Larkins<br>Road diversion)                                  | SI prior to construction of<br>Boeing Hangar                                      | 13 dynamic sampling<br>and RC boreholes<br>7 TP | 10 (metals, asbestos,<br>PAH and TPH CWG)                             | 3 (Metals, PAH,<br>phenols). GW<br>samples collected<br>during drilling            | N                                     | Ν                         | N  |
|    | Gatwick Boeing Hangar –<br>Geo Environmental<br>Interpretative report                | 20760-XX-<br>R-911-SUR-<br>000002       | February 2017     |  | Interpretation of 20000-XX-B-<br>911-PDR-000001 report                            | NA  | As above  |  |                                       |                           | Υ  |
|    | Gatwick Hangar –<br>Geotechnical Interpretative<br>Report                            | 20760-XX-<br>R-911-SRC-<br>00002        | March 2017        |  | Interpretation of 20000-XX-B-<br>911-PDR-000001 report                            | NA  | NA  | NA   | NA                                    | NA                        | NA   |
| 6  | Crawters Brook Bird<br>Netting - Ground<br>Investigation Report                      | 20000-XX-<br>C-871-SRC-<br>000001       | 14/03/2016        | Y (FCA Car<br>Park X) (along<br>Perimeter Road<br>South)                         | Provide information for bird<br>netting over Crawters Brook<br>Stream             | 5 WS  | 4 (metals, PAHs,<br>TPH CWG,<br>asbestos, cyanide,<br>phenol and WAC) | Ν  | N                                     | N                         | N  |
| 7  | Report on a Geotechnical<br>Investigation - Dax                                      | 20206-00-C-<br>911-SUR-<br>000001       | November<br>2012  | Y (Coaching<br>Gates) (in<br>Southern<br>Terminal, next<br>to end of<br>shuttle) | Geotechnical SI for new building  | 2 WS  | Ν   | Ν  | N                                     | Ν                         | N  |
| 8  | Factual Ground<br>Investigation Report - De-<br>Icing tanks                          | J13784 v2                               | 22/10/2018        | N  | Proposed to locate new free-<br>standing bunded de-icing<br>tanks                 | 3 WS<br>2 PBT<br>4 concrete cores<br>4 DCP      | 2 (metals, banded<br>TPH, phenol, PAHs,<br>WAC)                       | Ν  | N                                     | N                         | N  |
| 9  | Ground Investigation -<br>South Terminal<br>International Departures<br>Lounge (IDL) | 20206-00-<br>SR-900-<br>000001 rev<br>1 | August 1998       | N  | Geotechnical SI for proposed extension to IDL                                     | 2 CP  | Ν   | Ν  | N                                     | N                         | Ν  |
| 10 | South Terminal External<br>Security Building – Ground<br>Investigation Specification | 22152-XX-<br>C-911-SPE-<br>000004/5     | 11/10/2017        | Not relevant – sp<br>undertaken  | ecification document, no GI   | NA  | NA  | NA   | NA                                    | NA                        | NA   |
| 11 | Fire Training Ground –<br>Geotechnical and<br>Contamination<br>Assessment            | 106400/010<br>0                         | September<br>1999 | Y (fire training<br>area, Taxiway<br>Juliet West                                 | Proposed to redevelop current<br>fire training ground with a fire<br>training rig | 12 TP   | 17 (metals, PAH,<br>phenol, asbestos,<br>TPH and TEM)                 | 5 (metals, TOC,<br>nitrate, iron,<br>manganese, BOD<br>and COD) from trial<br>pits | N                                     | N                         | Y  |
|    | Laboratory Analysis Letter<br>Report   | No<br>reference                         | 22/08/2002        | Spur)  | Unknown – very little information   | n provided                                      | Ν   | 4 (inorganics and oil fingerprinting)  | Ν                                     | Ν                         | Ν  |



| No | Report Title  | GAL<br>Reference                          | Date         | In Genesis<br>Area?                         | Purpose   | GI Scope                            | Soil Samples?  | GW Samples?  | GW Level<br>Monitoring?<br>Long term?                        | Ground Gas<br>Monitoring? | Interpretation of<br>Environmental<br>Results? |
|----|---|---|--------------|---|---|-------------------------------------|--|--|--|---------------------------|--|
| 12 | Long Term Storage<br>Lagoon Nr 1  | 22150-XX-<br>C-870-UDT-<br>000017         | 03/12/2013   | N (to east of<br>South Terminal)            | Refurbish existing storage<br>lagoon (Pond D) – drainage<br>calculations            | 6 WS                                | N  | Ν  | N  | Ν                         | Ν  |
| 13 | Report on a Ground<br>Investigation at New<br>Engineering Stores  | 12255                                     | March 2011   | N   | Provide information for foundation design of stores                                 | 14 Concrete cores<br>12 DCP<br>8 WS | N  | Ν  | N  | Ν                         | N  |
| 14 | Gatwick Batching Plant –<br>land contamination results<br>and Trial Pit Narrative<br>Document                               | 22196-00-C-<br>864-TDT-<br>000001         | 29/01/2018   | Y (one of<br>construction<br>compounds)     | Provide information of geotechnical properties of soil                              | 5 TP                                | 5 (metals, asbestos,<br>PAHs and TPH<br>CWG)   | Ν  | N  | Ν                         | Y  |
| 15 | Gatwick Stream Flood<br>Attenuation –<br>Contaminated Soil<br>Sampling from the Control<br>structure & Haul Road<br>Results | 22089-XX-<br>U-871-REP-<br>000004         | 13/12/2013   | Ν   | Not provided  | 3 soil samples                      | 3 (metals, phenol, e-<br>coli, PAHs, TPH<br>CWG  | Ν  | Ν  | Ν                         | Ν  |
| 16 | Gatwick Taxiway and AGL<br>Rehabilitation – Pavement<br>Site Investigation  | 20000-XX-<br>R-XXX-<br>SUR-<br>000002     | 05/06/2013   | N (TPs on north<br>side of Taxiway<br>42 S) | Not provided  | 25 Concrete cores<br>2 TP           | Ν  | Ν  | N  | Ν                         | N  |
| 17 | Gatwick Airport<br>Maintenance Base –<br>Groundwater Monitoring<br>and Risk Assessment                                      | 20064-XX-<br>C-911-SUR-<br>000001         | January 2007 | Y (one of the<br>construction<br>compounds  | Monitoring before, during and after demolition of buildings on the maintenance base | 4 CP<br>4 MW                        | 16 soil and 3<br>sediment samples<br>(metals, asbestos,<br>cyanide, EPH, PAH,<br>VOCs and SVOCs) | 3 rounds carried<br>out from 4 newly<br>installed wells and<br>8 pre-existing wells<br>(metals, EPH, PAH,<br>VOCs and SVOCs) | 3 rounds<br>(only 1<br>completed at<br>time of<br>reporting) | Ν                         | Y  |
| 18 | Report on a Ground<br>Investigation at London<br>Gatwick Airport South<br>Terminal - Hangar 5 &<br>Building P7              | 20062-00-<br>SR-247-<br>000001 Rev<br>1.0 | 15/02/2010   | Y (one of the construction compounds)       | Prior to demolition of buildings,<br>to be replaced by a logistics<br>centre        | 3 CP and 3 MW<br>2 WS               | 12 (metals, cyanide,<br>asbestos PAH, VOC,<br>SVOCs)   | 3 (metals, cyanide,<br>PAH, VOC,<br>SVOCs)   | 1 round  | Ν                         | N  |
| 19 | Jubilee House Coach<br>Parking – Ground<br>Investigation Test Report  | 20700-00-S-<br>200-TST-<br>000001         | 11/11/2016   | N   | Proposed construction of new bus/coach pick-up area                                 | 3 WS<br>3 CBR                       | 1 (WAC)  | Ν  | N  | N                         | Ν  |
| 20 | Main and North Runway<br>Rehabilitation – Ground<br>Investigation Report  | 2000-XXC-<br>4191-REP-<br>00003           | 08/12/2017   | Y (northern<br>runway)                      | Rehabilitation of runways,<br>taxiways  | 22 Cores with WS follow-on          | N – Hydrocarbon<br>contamination noted<br>on logs  | Ν  | N  | Ν                         | N  |
| 21 | Maintenance Base –<br>Hangar Decommission   | Y- duplicate o                            | of Report 17 | 1   | 1   | 1                                   |  | 1  | 1  | 1                         | 1  |



| No | Report Title  | GAL<br>Reference   | Date        | In Genesis<br>Area?           | Purpose   | GI Scope  | Soil Samples?  | GW Samples?   | GW Level<br>Monitoring?<br>Long term? | Ground Gas<br>Monitoring?        | Interpretation of<br>Environmental<br>Results? |
|----|---|--|-------------|-------------------------------|---|---|--|---|---------------------------------------|----------------------------------|--|
|    | MSCP 7 – Ground<br>Investigation Report   | 20000-XX-<br>C-734-SUR-<br>000001                                  | 09/01/2017  |                               |   | 6 dynamic sample with<br>RC follow-on                         | 10 (WAC)   | Ν   | N                                     | N                                | Ν  |
| 22 | MSCP 7 – Geo-<br>environmental Desk Study   | 20700-XX-<br>U-911-TDT-<br>0000022070<br>0-XX-U-911-<br>TDT-000002 | August 2016 | Ν                             | Proposed construction of new                                  | Desk Study  | N  | Ν   | N                                     | N                                | N  |
|    | MSCP 7 – Ground<br>Investigation Report   | 20700-XX-<br>C-911-TDT-<br>000001                                  | 12/10/2016  |                               | car park  | As report 20000-XX-C-   | 10 (WAC)   | Ν   | N                                     | N                                | Y  |
|    | MSCP 7 Site Investigation<br>– Additional Groundwater<br>Monitoring and Reporting | 20700-XX-<br>C-911-TDT-<br>000002<br>Rev02                         | 23/07/2017  |                               |   | 734-SUR-000001  | N  | Ν   | 4 rounds (8<br>months)                | N                                | Ν  |
|    | MSCP 4 – Geo-<br>environmental Desk Study   | 22081-XX-<br>U-911-TDT-<br>000001                                  | 20/06/2017  |                               |   | Desk Study  | N  | Ν   | N                                     | N                                | Ν  |
| 23 | MSCP 4 – Ground<br>Investigation Report   | 20000-XX-<br>B-911-TDT-<br>000001                                  | 17/01/2018  | Y (Hotel and ST<br>Forecourt) | Proposed construction of new car park                         | 3 dynamic samples<br>2with RC follow-on<br>3 MW<br>9 WS       | 18 (metals, PAH,<br>TPH CWG, phenols,<br>asbestos and WAC)                                   | 3 (pH, sulphate,<br>magnesium)  | 3 rounds (4<br>months)                | N                                | N  |
|    | MSCP 4 – Ground<br>Investigation Report   | 22081-XX-<br>C-911-TDT-<br>000001                                  | 05/03/2018  |                               |   | As report 20000-XX-B-91                                       | 1-TDT-000001   |   | 1                                     |                                  | Y  |
| 24 | NT Car Park J Ditch<br>Remediation Design<br>Report                               | 20724-XX-<br>X-864-ROP-<br>000002                                  | 18/11/11    | Y (MSCP J, NT<br>Forecourt)   | Investigation of ditch instability and settlement in car park | 2 RC<br>1 WS<br>4 TP<br>3 ditch water sample<br>points        | 7 (metals, PAH,<br>TPH, SVOCs, VOCs,<br>TEM, asbestos and<br>WAC)                            | 3 (metals, PAH,<br>TPH, SVOCs and<br>VOC)                                     | N                                     | Ν                                | Y  |
| 25 | North Terminal Extension<br>– Interpretative<br>Geoenvironmental Report           | 20700-XX-<br>RP-900-<br>000003                                     | 27/03/2009  | Ν                             | Proposed extension to North<br>Terminal                       | 9 RC + 7 MW<br>10 WS +<br>8 MW<br>14 DP<br>16 Cores<br>20 DCP | 28 (metals, RPH,<br>PAH, TPH CWG,<br>VOCs, SVOCs and<br>WAC) – no<br>laboratory certificates | 5 (metals, VOCs,<br>SVOCs, EPH and<br>PAH) – no<br>laboratory<br>certificates | 4 rounds<br>(over 1.5<br>months)      | 4 rounds<br>(over 1.5<br>months) | Y  |
|    | North Terminal<br>Redevelopment –   | 20700-XX-<br>S-247—  | 01/07/52013 |                               |   | None – desktop review   | Ν  | Ν   | Ν                                     | Ν                                | Ν  |



| No | Report Title  | GAL<br>Reference   | Date                | In Genesis<br>Area? | Purpose   | GI Scope                           | Soil Samples?  | GW Samples?    | GW Level<br>Monitoring?<br>Long term? | Ground Gas<br>Monitoring? | Interpretation of<br>Environmental<br>Results? |
|----|---|--|---------------------|---------------------|---|------------------------------------|--|----------------|---------------------------------------|---------------------------|--|
|    | Geotechnical Desktop Site   | BOD-   |                     |                     |   |                                    |  |                |                                       |                           |  |
|    | Appraisal   | 0000241  |                     |                     |   |                                    |  |                |                                       |                           |  |
|    | Gatwick Car Park Survey<br>Zones F&G Factual Report   | 20000-XX-<br>B-911-PDR-<br>000005                                  | July 2017           |                     |   | 5 RC + 3 MW<br>10 WS               | 14 (metals, PAH,<br>TPH CWG,<br>asbestos, cyanide)                     | 3 (inorganics) | 3 rounds<br>(over 1<br>month)         | N                         | N  |
|    | Car Park Decking –<br>Ground Investigation<br>Report  | 20600-XX-<br>C-911-TDT-<br>000001                                  | 20/07/2019          | _                   | Proposed overdecking of car park                |                                    |  |                |                                       | 1                         | Y  |
| 26 | South Terminal Decking<br>Zones F&G –<br>Geotechnical Design<br>Report                                  | 20600-020-<br>U-247-SPE-<br>000001                                 | 18/01/2018          | Ν                   |   | As report 20000-XX-B-9             | 11-PDR-000005  |                |                                       |                           | Ν  |
|    | South Terminal Decking<br>Zones F 7 G –<br>Geotechnical Design<br>Report Sprinkler Tank                 | 20600-00-U-<br>247-SPE-<br>000002                                  | 09/07/2018          | -                   | Proposed sprinkler tank base<br>at car park F&G | 1 WS + 1 MW<br>2 TP                | Ν  | Ν              | 2 rounds (2<br>weeks)                 | N                         | NA   |
| 27 | Pier 1 and Pier 2<br>Developments –<br>Contaminated Land Site<br>Investigation Interpretative<br>Report | 20209-XX-<br>SR-200-<br>000002 &<br>20340-XX-<br>SR-200-<br>000002 | January 2010        | N                   | Proposed redevelopment of<br>Pier 1 and Pier 2  | 1 CP + 1 MW<br>9 WS + 2 MW<br>3 TP | 12 (metals, EPH,<br>TPH CWG, PCBS,<br>VOCs, PAH, WAC)                  | N (wells dry)  | 1 round                               | N                         | Y  |
| 28 | Pier 4  | Not relevant -   | - specification doo | ument, no ground    | investigation undertaken                        |                                    |  |                |                                       |                           |  |
| 29 | Report on a Ground<br>Investigation at Gatwick<br>North Terminal Pier 5                                 | SE-RRG-F-<br>001   | 26/01/2011          | Y (NT IDL           | Redevelop Pier 5 – new link                     | 2 RC + 2 MW<br>3 WS                | 5 (metals, cyanide,<br>TPH CWG, PAH,<br>VOC, PCB, asbestos<br>and WAC) | Ν              | 1 round                               | N                         | Ν  |
| 23 | Pier 5 Reconfiguration –<br>Environmental and<br>Geotechnical Interpretative<br>Report                  | 20704-XX-<br>BR-XXX-<br>000001                                     | 12/09/2011          | Expansion)          | bridges, 2 <sup>nd</sup> floor extension        | As report SE-RRG-F-00              | 1  |                |                                       | -                         | Y  |
| 30 | Pier 6 Surveys – Log &<br>HWD report  | 2TQ01-00-<br>R-911-SUR-<br>000003                                  | 31/07/2018          | Ν                   | Proposed realignment of<br>Quebec Taxiway       | 14 Cores<br>14 DCP<br>11 TP        | Ν  | Ν              | Ν                                     | Ν                         | NA   |
| 31 | Pier 6 Extension – Trial Pit<br>Testing Report  | 20709-00-R-<br>911-SUR-<br>000003                                  | June 2013           | Ν                   | Redevelopment of Pier 6                         | 7 TP                               | 2 (metals, asbestos,<br>cyanide, PAH, TPH<br>CWG)                      | Ν              | Ν                                     | N                         | Ν  |



| No | Report Title  | GAL<br>Reference                      | Date                 | In Genesis<br>Area?                         | Purpose   | GI Scope   | Soil Samples?  | GW Samples?  | GW Level<br>Monitoring?<br>Long term? | Ground Gas<br>Monitoring?          | Interpretation of<br>Environmental<br>Results? |
|----|---|---------------------------------------|----------------------|---|---|--|--|--|---------------------------------------|------------------------------------|--|
|    | Gatwick Pier 6 Extension –<br>Fuel Leakage Investigation  | 20709-00-C-<br>911-STD-<br>000001     | June 2013            |   |   | 8 CP – 8 MW<br>5 WS – 5 MW                                 | N  | 2 rounds of<br>sampling (metals,<br>PAH, TPH CWG) –<br>no laboratory<br>certificates | 6 rounds (2<br>months)                | N                                  | Y  |
|    | Ground Gas Investigation<br>– Pier 6 Extension  | 20709-00-C-<br>911-STD-<br>000002     | February 2013        |   |   | 4 CP – 4 MW<br>8 WS – 8 MW                                 | Ν  | Ν  | 6 rounds<br>(over three<br>months)    | 6 rounds<br>(over three<br>months) | Y  |
|    | Gatwick North Terminal<br>Pier 6 Extensions –<br>Pavement Investigation<br>Report                           | 20709-00-R-<br>911-SUR-<br>000007     | 10/07/2013           | Y (Charlie Box,<br>N Runway Exits)          |   | 42 Cores   | N  | Ν  | N                                     | N                                  | Ν  |
|    | Pier 6 Extension – Factual<br>Ground Investigation<br>Report  | 20709-00-R-<br>911-SUR-<br>000005     | June 2013            | - N   |   | As report 20709-00-C-91                                    | 1-STD-000001 (includes                                   | laboratory certificates  | )                                     | 1                                  | Ν  |
|    | Pier 6 Survey Works –<br>Stand 103 – Borehole 10<br>& 11 Report   | 2S103-00-<br>R-911-SUR-<br>000004     | 05/07/2018           |   |   | 2 WS with RC follow on<br>– 2 MW                           | 3 (metals, TPH<br>CWG, PAH, SVOCs,<br>VOCs and asbestos) | Ν  | N                                     | Ν                                  | Ν  |
| 32 | Project Engineering List  | Not relevant -                        | - no reports in fold | der   |   |  |  |  |                                       |                                    |  |
|    | Public Transport DDA<br>Access – Ground<br>Investigation Report   | 20000-XX-<br>C-734-SUR-<br>000002     | 09/01/2017           |   |   | 1 WS with RC follow on<br>– 1 MW<br>1 trial trench<br>4 TP | 7 (metals, PAH,<br>BTEX, PCB, WAC)                       | Ν  | 2 rounds (1<br>week)                  | N                                  | Ν  |
| 33 | Public Transport DDA<br>Access – Combined<br>Ground Investigation<br>Report & Geotechnical<br>Design Report | 20000-XX-<br>R-734-SUR-<br>000001     | 11/04/2017           | N   | Improving access to local transport   | As report 20000-XX-C-73                                    | 34-SUR-000002  |  |                                       |                                    | Y  |
| 34 | Redevelopment of Hangar<br>5 & Building P7  | Y – duplicate                         | of report 18         | 1   |   | 1  |  |  |                                       |                                    | 1  |
| 35 | Geotechnical Report on<br>Ground Investigation –<br>Sub-Station G   | 20226-00-C-<br>734-SRC-<br>000001     | July 2015            | Y (one of the<br>construction<br>compounds) | Redevelop the sub-station and relocated within a car park   | 7 Cores<br>2 TP with DCPs                                  | 7 (metals, PAH, TPH<br>CWG and WAC)                      | Ν  | Ν                                     | N                                  | Ν  |
| 36 | Southern Terminal<br>Baggage & Pier 1 –<br>Factual Site Investigation<br>Report                             | 20209-XX-<br>C-XXX-<br>REP-<br>000001 | 28/03/2012           | Ν   | Redevelop the current Pier 1 –<br>include changes to the existing<br>piers and taxiways and new<br>baggage facility | 22 RC<br>6 WS<br>14 CBR                                    | Ν  | Ν  | Ν                                     | Ν                                  | Ν  |



| No | Report Title  | GAL<br>Reference                  | Date             | In Genesis<br>Area?                                       | Purpose                            | GI Scope  | Soil Samples?   | GW Samples?   | GW Level<br>Monitoring?<br>Long term? | Ground Gas<br>Monitoring? | Interpretation of<br>Environmental<br>Results? |
|----|---|-----------------------------------|------------------|---|------------------------------------|---|---|---|---------------------------------------|---------------------------|--|
|    | Pier 1 & Baggage Project<br>Report on a Ground<br>Investigation – Phase 3                             | 20220-00-R-<br>911-SUR-<br>000004 | 21/06/2013       | Ν   |                                    | 4 CP with RC follow on<br>– 2 MW<br>4 WS  | N   | N   | 4 rounds (wee                         | kly)                      | N  |
|    | ST Baggage & Pier 1<br>Project – Contamination<br>Survey Phase A Report                               | 20220-00-R-<br>911-SUR-<br>000001 | 29/04/2013       | Y (ST IDL<br>Expansion)                                   |                                    | 7 dynamic sample and<br>RC follow on – 6 MW<br>9 TP<br>3 surface water samples<br>from Gatwick Stream | 28 (metals, asbestos,<br>TPH CWG, VOCs<br>and SVOCs)                    | 10 (metals,<br>inorganics, TPH<br>CWG, VOCs and<br>SVOCs) | 1 round                               |                           | N  |
|    | ST Baggage + Pier 1<br>Geoenvironmental<br>Conceptual Site Model                                      | 20209-XX-<br>C-900-REP-<br>000001 | 28/09/2012       |   |                                    | None – desk based<br>assessment   | N   | Ν   | N                                     | Ν                         | N  |
|    | Contaminated Strategy<br>Report – Gatwick Airport<br>South Terminal Baggage<br>& Pier 1 Project       | 20220-00-H-<br>XXX-TDT-<br>000001 | 23/09/2013       |   |                                    | None – desk based<br>assessment   | N   | N   | N                                     | N                         | N  |
|    | South Terminal Baggage<br>and Pier 1 Contaminated<br>Land Risk Assessment<br>and Remediation Strategy | 20220-XX-<br>C-911-BOD-<br>000001 | 31/05/2013       | Y (Taxiway<br>Victor, Taxiway<br>Whiskey-Victor-<br>Zulu) |                                    | 12 WS with RC follow<br>on – 12 MW<br>7 TP<br>3 surface water samples<br>19 WS<br>7 TP                | 38 (metals, BTEX,<br>VOC, SVOCs, PAH,<br>TPH CWG, PCBs<br>and asbestos) | 19 (VOCs, SVOCs,<br>PAH, TPH CWG<br>and metals)           | 4 rounds (wee                         | kly)                      | Y  |
|    | ST Baggage & Pier 1 –<br>Contaminated Land<br>Verification Report                                     | Report corrup                     | oted – illegible |   |                                    | Report corrupted – illegib  | le  |   |                                       |                           |  |
|    | Drawing – Findings of<br>Contaminated Land<br>Assessment  | 20220-XX-<br>C-911-GA-<br>000013  | 30/05/2013       |   |                                    | Drawing   |   |   |                                       |                           |  |
|    | Drawing – Existing<br>Geological Conditions<br>Layout   | 20220-XX-<br>C-915-GA-<br>000001  | 13/12/2012       |   |                                    | Drawing   |   |   |                                       |                           |  |
|    | Drawing – Ground<br>Investigation Hole<br>Location Plan   | 20220-XX-<br>C-911-GA-<br>000012  | 13/12/2012       |   |                                    | Drawing   |   |   |                                       |                           |  |
| 37 | Southern Terminal<br>Baggage Project – Report<br>on a Ground Investigation                            | 20203-00-<br>SR-911-<br>000014    | 18/02/2010       | Ν   | Redevelop area as strategic<br>hub | 2 CP – 2 MW<br>1 RC – 1 MW<br>1 WS<br>8 TP  | 5 (metals, PCBs,<br>PAH, EPH, VOCs,<br>phenol and<br>asbestos)          | Ν   | 1 round                               | 1 round                   | Ν  |





| No | Report Title   | GAL<br>Reference                      | Date                | In Genesis<br>Area?   | Purpose   | GI Scope   | Soil Samples?  | GW Samples? | GW Level<br>Monitoring?<br>Long term?   | Ground Gas<br>Monitoring? | Interpretation of<br>Environmental<br>Results? |
|----|--|---------------------------------------|---------------------|---|---|--|--|-------------|---|---------------------------|--|
| 38 | Southern Terminal ULD<br>External Storage Facility –<br>Ground Investigation<br>Report | 22118-00-C-<br>915-TST-<br>000001     | 18/10/2017          | N   | New pavement and additional stillage units  | 5 TP   | Ν  | Ν           | N   | N                         | Ν  |
|    | ULD External Storage<br>Facility – Trial Pit Test<br>Results                           | 22118-00-C-<br>915-TST-<br>000003     | 18/10/2017          |   |   | As above (comprised the  | 5 trial pit logs)  | ·           |   | ·                         | ·  |
| 39 | Gatwick STAD Project –<br>Ashdown House Ramp<br>and Canopy area Report                 | 20362-00-C-<br>911-SUR-<br>000001     | 16/01/2013          | Ν   | Determine bearing capacity for<br>canopy structure  | 1 WS   | Ν  | Ν           | Ν   | N                         | Ν  |
| 40 | Strategic Power Resilience<br>Project (Control Tower) –<br>Site Investigation Report   | 20473-XX-<br>C-XXX-<br>SRC-<br>000001 | 14/11/2018          | N   | Determine whether leaching of<br>diesel fuels from adjacent<br>underground fuel tanks had<br>occurred | 2 WS   | 2 (metals, PAH,<br>EPH, GRO, BTEX,<br>PCBs, asbestos and<br>WAC)                           | Ν           | N   | N                         | Y  |
| 41 | Taxiway and AGL<br>Rehabilitation  | N – duplicate                         | of report 16        |   |   |  | 1  |             |   | 1                         |  |
| 42 | UXO and EXO Surveys –<br>New Hangar  | 20760-XX-<br>R-911-SRC-<br>000001     | 18/11/2016          | Ν   | Undertaken prior to construction of Boeing Hangar   | NA   | NA   | NA          | NA  | NA                        | NA   |
| 43 | Westfield Stream Gatwick<br>– Ground Investigation<br>Report                           | No<br>reference on<br>report          | January 2015        | Y (Pond A and<br>potential area<br>for flood<br>compensation) | Design of diversion of the<br>Westfield Stream  | 3 WS with RC follow on<br>– 1 MW<br>11 TP  | 20 (metals, asbestos,<br>cyanide, PAH and<br>TPH) – no laboratory<br>certificates provided | N           | 1 round   | N                         | Y  |
| 44 | Main and North Runway<br>Rehabilitation  | Y – original ve                       | ersion (v0) of repo | ort 20  |   |  |  |             |   | 1                         |  |
| 45 | Public Transport and DDA<br>Access   | Y- duplicate o                        | of report 33 (Grou  | Ind Investigation Re  | eport, ref: 20000-XX-C-734-SUR-0  | 00002  |  |             |   |                           |  |
| 46 | Gatwick Northern Runway<br>Project, Museum Field                                       | No<br>reference<br>on report          | March 2022          | Y (Flood<br>compensation<br>area)                             | FCA investigation   | 3 CP with RC follow on –<br>3 MW   | Ν  | Ν           | 2 rounds<br>Data logger<br>17 Feb to 25<br>March 2022                               | Ν                         | Ν  |
| 47 | Gatwick North Runway<br>Project, Highways<br>vindow sample borehole                    | No<br>reference<br>on report          | July 2022           | Y (Surface<br>access)   | Highways investigation  | 10 CP with RC follow on,<br>1 WS with RC follow on,<br>9 WS, 1 RC, 4 TP, 6 HP<br>– 13 MW | Ν  | Ν           | Weekly<br>rounds 23<br>May to 28<br>June<br>Data logger<br>14 May to 3<br>July 2022 | Ν                         | Ν  |



TP – trial pit

HP – hand dug pit

CPT – cone penetration test

MW – monitoring well

GDR – Geotechnical Design Report

RC – rotary core

- PBT plate bearing tests
- DCP dynamic cone penetrometer test
- CP cable percussion borehole
- CBR California Bearing Ratio



## Annex 4

Ground Investigation Report Extracts



|                | Notes:<br>Site Plan created using HoleBASE SI                         |
|----------------|---|
|                | incorporating Bing Maps included under<br>licence with Bentley Ltd.   |
| ANA H          | Scale:  |
|                | 1:1500  |
|                | Surveyed By:<br>SOCOTEC   |
|                | Surveyed Date:  |
| and the second | FEB 2022  |
|                | Key:  |
|                | Cable percussion with rotary follow-on exploratory boreholes          |
|                | SITE PLAN   |
|                | SOCOTEC   |
|                | Project ID:<br>D2001-22   |
| and the second | Project Title:  |
| · ·            | Gatwick Northern Runway Project<br>Museum Field                       |
|                | Client:<br>VINCI Construction UK Limited<br>trading as Taylor Woodrow |
|                | Figure:   |
|                | A2  |
|                |   |



©2021 SOCOTEC UK Limited

## APPENDIX B EXPLORATORY HOLE RECORDS

Key to Exploratory Hole Records Hammer Energy Ratio Report Borehole Logs Key Hammer Reference AR3762 BH1 MF, BH2 MF and BH3 MF

## Key to Exploratory Hole Records



| SAMPLES  |  |
|--|--|
| Undisturbed  |  |
| U  | Driven tube sample   |
| UT   | Driven thin wall tube sample > nominally 100 mm diameter and 100% recovery unless otherwise stated   |
| TW   | Pushed thin wall tube sample   |
| P  |  |
|  | Pushed piston sample   |
| CBR  | CBR mould sample   |
| BLK  | Block sample   |
| С  | Core sample (from rotary core) taken for laboratory testing.   |
| Disturbed  |  |
| D  | Small sample (including samples recovered from SPT)  |
| В  | Bulk sample  |
| LB   | Large Bulk sample (comprising more than one container as required)   |
| Other  |  |
| W  | Water sample   |
| G  | Gas sample   |
| ES   | Soil sample  |
| EW   | Water sample Environmental chemistry samples (in more than one container where appropriate)  |
| Comments to  | Sequential sample reference numbers are assigned to every sample taken during hole construction.   |
| samples  | NR - No Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).  |
|  | Samples not shown on exploratory hole logs:  |
|  | <ul> <li>subsamples / specimens taken for on-site testing, eg point load testing</li> </ul>  |
|  | samples taken from borehole installations (ie water or gas) after hole construction  |
| DYNAMIC  | Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively   |
| SAMPLING   |  |
| DYS  | Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.   |
| L  | Retained complete liner sample (with sample reference number)  |
| IN SITU/FIELD TES  | its  |
| SPT S or SPT C   | Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO  |
|  | 22476-3:2005+A1:2011. The open shoe configuration is used without a sample liner unless shown otherwise. Samples   |
|  | recovered by SPT open shoe are shown as type D.  |
|  | The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise   |
|  | and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limiting  |
|  | value (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also.   |
| IV   | <i>in situ/</i> field vane shear strength, peak (p) and remoulded (r), kPa   |
| 1 V  |  |
| HV   |  |
| HV   | Hand vane shear strength, peak (p) and remoulded (r), kPa  |
| PP   | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa  |
| PP   | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented  |
| PP<br>KFH, KRH, KPI  | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.  |
| PP<br>KFH, KRH, KPI<br>PID   | <ul> <li>Hand vane shear strength, peak (p) and remoulded (r), kPa</li> <li>Pocket penetrometer test, converted to shear strength, kPa</li> <li>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented on separate report sheets.</li> <li>VOC concentration using hand-held photo-ionisation detector, ppmv</li> </ul>  |
| PP<br>KFH, KRH, KPI<br>PID<br><b>DRILLING RECORI</b>   | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br>DS   |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di  | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br>DS<br>iscontinuity state - as defined in BS 5930:2015+A1:2020  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR   | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br>DS<br>iscontinuity state - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR<br>SCR  | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br>DS<br>iscontinuity state - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR<br>SCR<br>RQD   | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br>DS<br>iscontinuity state - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %   |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If   | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If   | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.<br>Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If<br>FI   | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If<br>FI<br>NI                                     | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.<br>Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If<br>FI<br>NI<br>NA                               | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.<br>Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)<br>Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).<br>Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)<br>Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORD<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If<br>FI<br>NI<br>NA<br>NIDD                       | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.<br>Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)<br>Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).<br>Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)<br>Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered<br>as Non-intact due to the drilling process. (Used only where specified)<br>No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative  |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORD<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If<br>FI<br>NI<br>NA<br>NIDD<br>NDP                | Hand vane shear strength, peak (p) and remoulded (r), kPa<br>Pocket penetrometer test, converted to shear strength, kPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.<br>Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)<br>Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).<br>Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)<br>Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered<br>as Non-intact due to the drilling process. (Used only where specified)<br>No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative<br>representation to showing a single If value for the depth range of non-fractured core.)<br>Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If   |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORD<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If<br>FI<br>NI<br>NA                               | Hand vane shear strength, peak (p) and remoulded (r), KPa<br>Pocket penetrometer test, converted to shear strength, KPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.<br>Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)<br>Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).<br>Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)<br>Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered<br>as Non-intact due to the drilling process. (Used only where specified)<br>No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative<br>representation to showing a single If value for the depth range of non-fractured core.)<br>Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If<br>accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.<br>Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %). |
| PP<br>KFH, KRH, KPI<br>PID<br>DRILLING RECORI<br>Classification of di<br>TCR<br>SCR<br>RQD<br>If<br>FI<br>NI<br>NA<br>NIDD<br>NDP<br>CRF<br>AZCL | Hand vane shear strength, peak (p) and remoulded (r), KPa<br>Pocket penetrometer test, converted to shear strength, KPa<br>Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presented<br>on separate report sheets.<br>VOC concentration using hand-held photo-ionisation detector, ppmv<br><b>DS</b><br><b>iscontinuity state</b> - as defined in BS 5930:2015+A1:2020<br>Total Core Recovery, %<br>Solid Core Recovery, %<br>Rock Quality Designation, %<br>Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.<br>Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)<br>Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).<br>Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)<br>Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered<br>as Non-intact due to the drilling process. (Used only where specified)<br>No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative<br>representation to showing a single If value for the depth range of non-fractured core.)<br>Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If<br>accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.  |

# Key to Exploratory Hole Records



| GROUNDWATER<br>▼<br>▽  | Groundwater er<br>Depth to ground    | ntry<br>Iwater after observa                          | tion period  |   |  |                         |                   |
|--|--------------------------------------|---|--|---|--|-------------------------|-------------------|
| INSTALLATIONS<br>Standpipe/  |                                      |   |  | ecord in the rightmos   | t Backfill columr  | with appropriate        | graphic.          |
| piezometer   |                                      |   |  |   |  |                         |                   |
| SP   | Standpipe                            |   | 1.1  | F   |  |                         |                   |
| SPIE   | Standpipe piezo                      | meter   | Plain  | Slotted   |  | ometer                  |                   |
| PPIE   | Pneumatic pieze                      |   | Pipe   | Pipe  |  | Tip                     |                   |
|  | •                                    |   | Fibe   | Fibe  |  | nþ                      |                   |
| EPIE<br>Inclinometer or<br>Slip Indicator                            | Electronic piezo                     | inelei  | <u>.</u>   |   |  |                         |                   |
| ICE  | Biaxial inclinom                     | eter  |  |   |  |                         |                   |
| ICM  | Inclinometer tub                     | ing for use with prol                                 | be 🤹   |   |  |                         |                   |
| SLIP   | Slip indicator                       | <b>5</b>  | 00   |   |  |                         |                   |
| Settlement<br>Points   |                                      |   | Pre  | ssure Cells   |  |                         |                   |
| ESET   | Electronic settle                    | ment cell/gauge                                       | V  | EPCE E  | lectronic embed  | ment pressure cel       | I L               |
| ETM  |                                      | someter settlement                                    | point $\Lambda$  |   | lectronic push-in  |                         | 0                 |
| INSTALLATION /<br>BACKFILL<br>LEGENDS                                | A legend descri<br>materials are inc |   | is shown in the righ   | tmost column. Lege  | nd symbols used  | d to describe the b     | backfill          |
|  | Macadam                              | Concrete  | Grout  | Bentonite   | Sand   | Gravel A                | Arisings          |
| LEGENDS  |                                      | ade Ground / Fill stra                                |  | ry soil types, a comb<br>not differentiate betw<br>Made Ground / Fill | een engineered<br>Peat<br>ક્રાહ ક્રોહ ક્રોહ<br>૬ ક્રોહ ક્રોહ ક્રોહ | -                       | red               |
|  |                                      |   | $\rightarrow \rightarrow $ |   | ta alita alita a<br>alita alita alita                              |                         |                   |
|  | Clay                                 | Silt  | Sand   | Gravel  | Cobbles  | Boulders                | Coal              |
|  |                                      | × × × × × ×<br>× × × × ×<br>× × × × ×<br>× × × ×      |  |   |  |                         |                   |
|  | Mudstone                             | Siltstone   | Sandstone  | Conglomerate  | Breccia  | Limestone               | Chalk             |
|  |                                      | × × × × × × × × × × × × × × × × × × ×                 |  |   |  |                         |                   |
|  | Igneous<br>(Fine)                    | Igneous<br>(Med)                                      | Igneous<br>(Coarse)  | Metamorphic<br>(Fine)   | Metamorphic<br>(Med)   | Metamorphic<br>(Coarse) | Tuff              |
|  |                                      | + + + +<br>+ + + +<br>+ + + +<br>+ + + + +<br>+ + + + |  |   |  |                         |                   |
|  |                                      |   |  |   |  |                         |                   |
| tes:<br>e report text for full reference<br>dated June 2021 v1.3 col | ces of standards.                    |   |  |   |  | ĸ                       | Key<br>Sheet 2 of |

# Key to Exploratory Hole Records



| NOTES      |   |
|------------|---|
| 1          | Geological materials are described in accordance with BS 5930:2015+A1:2020, which is compliant with BS EN ISO 14688-1:2018 and 14689-1:2018 for soils and rocks respectively.   |
| 2          | The <b>consistency</b> determined during description for fine soils (clay and silt) is reported for strata where undisturbed samples are available. Where the logger considers that the samples may not be representative of the in situ condition, for whatever reason, the reported consistency may be omitted, or qualified using the terms <i>Probably</i> (where the logger is reasonably confident of the assessment, or <i>Possibly</i> where there is less certainty.   |
| 3          | The presence of <b>very coarse particles</b> (cobbles and boulders) is included in the stratum descriptions on logs using the proportional terminology of BS 5930 where possible. However, due to their relatively large size in relation to the diameter of boreholes, and volumes of samples recovered, these records may not be fully representative of their size and frequency in the ground. Where sample mass precludes a reliable estimate of the proportion of very coarse particles, their presence may be described using undefined qualitative terms, eg occasional, frequent, etc, or by noting the number of cobbles/boulders observed.   |
| 4          | The <b>declination of bedding and joints</b> is given with respect to the normal to the core axis, ie perpendicular to the direction of drilling. In a vertical borehole this will therefore correspond to the dip.   |
| 5          | The assessment of SCR, RQD and Fracture Spacing excludes all non-natural fractures (ie drilling induced) where these<br>can be positively identified.   |
| 6          | Observations of discernible <b>groundwater entries</b> during the advancement of the exploratory hole are given at the foot of the log and in the Legend column. The absence of a recorded groundwater entry should not, however, be interpreted as a groundwater level below the base of the borehole. Under certain conditions groundwater entry may not be observed, for instance, drilling with water flush or overwater, or boring at a rate faster than water can accumulate in the borehole. Similarly, where water entry observations do exist, groundwater may also be present at higher elevations in the ground than where recorded in the borehole. In addition, where appropriate, water levels in the hole at the time of recovering individual samples or carrying out in situ tests and at shift changes are given in the Records column. |
| 7          | The borehole logs present the results of <b>Standard Penetration Tests</b> recorded in the field without correction or<br>interpretation. However, in certain ground conditions (eg high hydraulic head or where very coarse particles are present)<br>some judgement may be necessary in considering whether the results are representative of in situ mass conditions.  |
| 8          | Date Time<br>Casing Water Value And Water level at the start and end of shift, together with the corresponding date and time. Casing depth and water levels are also shown at the time of tube sampling and Standard Penetration Tests.   |
| REFERENCES |   |
| 1          | BS EN ISO 14688-1:2018 : Geotechnical investigation and testing - Identification and classification of soil.<br>Part 1 Identification and description. British Standards Institution  |
| 2          | BS EN ISO 14689 : 2018 : Geotechnical investigation and testing - Identification and classification of rock.<br>British Standards Institution   |
| 3          | BS EN ISO 22476-3:2005+A1 : 2011 : Geotechnical investigation and testing - Field testing.<br>Part 3 Standard penetration test. British Standards Institution   |
| 4          | BS 5930:2015+A1:2020 : Code of practice for ground investigations. British Standards Institution  |
|            |   |

#### **SPT Hammer Energy Test Report**

in accordance with BSEN ISO 22476-3:2005

#### **ARCHWAY ENGINEERING (UK) LTD AINLEYS INDUSTRIAL ESTATE ELLAND** WEST YORKSHIRE **HX5 9JP**

| SPT Hammer Ref: | AR3762             |
|-----------------|--------------------|
| Test Date:      | <b>03/09</b> /2021 |
| Report Date:    | <b>03/09</b> /2021 |
| File Name:      | AR3762.spt         |
| Test Operator:  | JL                 |

#### **Instrumented Rod Data**

| Diameter d <sub>r</sub> (mm):         | 54    |
|---------------------------------------|-------|
| Wall Thickness tr (mm):               | 6.0   |
| Assumed Modulus E <sub>a</sub> (GPa): | 200   |
| Accelerometer No.1:                   | 7080  |
| Accelerometer No.2:                   | 11609 |

#### **SPT Hammer Information**

Hammer Mass m (kg): 63.5 Falling Height h (mm): 760 SPT String Length L (m): 10.0

#### **Comments / Location**

**SOCOTEC - 77110** 

5

4

3 m/sec

2

1 0

0

1

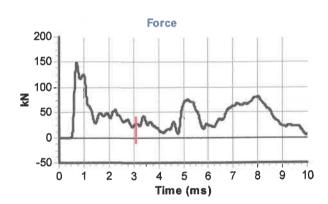
Signed:

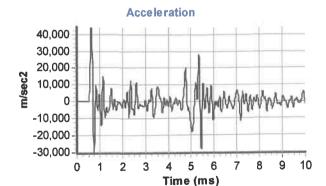
Title:

J.LOCK

FITTER

2 3



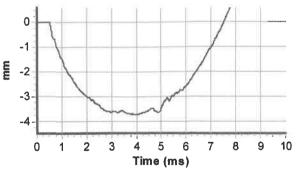


#### Time (ms) Displacement

4

5 6 7 8 9 10

Velocity



#### Calculations

|                                       |      | -   | - |
|---------------------------------------|------|-----|---|
| Measured Energy E <sub>meas</sub>     | (J): | 310 |   |
| Theoretical Energy E <sub>theor</sub> | (J): | 473 |   |
| Area of Rod A (mm2):                  |      | 905 |   |

Energy Ratio E<sub>r</sub> (%):

65

The recommended calibration interval is 12 months

| 1                    |                | Depth                  |               | Dates                            |                        | Metho                         |                         |   | Equipment                | Rig Ci          |                       |                             |             | lole             |               | asing            | -                             |                                      | Depth Related R   | emarks               |  | Ground Lev | vol.         | 59.87 mOD                |
|----------------------|----------------|------------------------|---------------|----------------------------------|------------------------|-------------------------------|-------------------------|---|--------------------------|-----------------|-----------------------|-----------------------------|-------------|------------------|---------------|------------------|-------------------------------|--------------------------------------|---|----------------------|--|------------|--------------|--------------------------|
| CP                   | 1.2            | 00 - 1.20<br>20 - 2.15 | 03 Feb 2      | 22 - 02 Feb 22<br>22 - 03 Feb 22 |                        | Hand dug ins<br>Cable percuss | sion drilling           |   | Hand tools<br>Dando 3000 |                 | R KD                  | 02 Feb 22<br>03 Feb 22      | 2.15        | Dia. (mm)<br>200 | Depth<br>2.00 | Dia. (mm)<br>200 | Depth                         | Remarks                              |   |                      |  | Coordinate |              | 59.87 mOD<br>E 525338.76 |
|                      |                | 10 - 9.65              | U9 Feb 2      | 22 - 09 Feb 22                   |                        | Rotary d                      | niiing                  |   | R67 Comacchio            | 305 DD/C        | G CD                  | 17 Feb 22                   | 9.65        | 146              | 9.65          | 146              |                               |                                      |   |                      |  | National G |              | N 140669.18              |
| Approved             | a              |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      |  |            |              | System                   |
| CP                   |                |                        |               |                                  |                        | -                             |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
| Date                 | e Time         | ie                     |               | Samples                          |                        |                               | Field T                 | ests  | Samp / Test              | Coring<br>Depth | TCR %<br>SCR %<br>RQD | Water added                 |             | Depth            | Level         | Legend           |                               |                                      | Strata D  | escription           |  | 0          | Water        | Backfill                 |
| 0 Casin              | -              |                        | -             | Type & No.                       | Records                | Depth                         | Туре                    | Records                                     | Casing Water             | (Diameter)      | RQD<br>%              | Flush details               |             | (Thickness       | )             | ~//              | (TODOOUL)                     |                                      | Main  |                      | Detail   | i do       | Entry        |                          |
| - 02 Fel<br>- 0.00   |                | orv 0                  | - 0.30        | B 1<br>D 2                       |                        |                               |                         |   |                          |                 |                       |                             |             | (0.30            | ))<br>+59.5   | 7                | (TOPSOIL)<br>Grass over s     | oft brown slightly                   | gravelly silty CLAY with fr   | equent rootlets.     |  |            |              | Flush cover<br>0.20      |
| -                    |                | 0                      | - 0.60<br>.40 | B 3<br>D 4                       |                        |                               |                         |   |                          |                 |                       |                             |             | (0.30            | ))            | <u> </u>         | Firm light bro                | wn mottled light h                   | inded fine of flint.<br>Duish grey slightly sandy s<br>x10mm) of reddish orange | ilty CLAY with       | 1  |            |              | - 22                     |
| -                    |                |                        | - 1.20<br>.70 | B 5<br>D 6                       |                        |                               |                         |   |                          |                 |                       |                             |             | 0.60             | +59.2         | 27 × ×           | occasional ro                 | otlets. Sand is co                   | arse.   | ironstone and        |  |            |              |                          |
| 1 - 02 Fe            | eb 22 150      | 00                     |               |                                  |                        | 1.00                          | ΗV                      | p 92kPa, r 43kPa                            |                          |                 |                       |                             |             | (0.60            | ))            | ×_×_×            | Stiff light brow              | Y FORMATION)<br>vn mottled light bl  | luish grey silty CLAY with<br>e ironstone and rare rootle                       | occasional nodules   | <i>J</i>                                       |            |              |                          |
| 0.00<br>03 Fe        | D<br>b 22 080  | -4 1                   | .20           | D 7                              |                        | 1.20 - 1.55                   | SPT S                   | 50 (10,13/15,19,16 for<br>50mm)             | 1.20 0.90                |                 |                       |                             |             | 1.20             | +58.6         | 67               | WEALD CL                      | Y FORMATION)                         | n occasional possible litho   |                      |  |            |              |                          |
| 0.00                 |                |                        |               |                                  |                        |                               |                         | ID AR3762 Er 65%                            |                          |                 |                       |                             |             | (0.0)            |               | <u> </u>         | of very stiff c               |                                      | -   |                      |  |            |              |                          |
| -                    |                | 1                      | .80           | D 8                              |                        |                               |                         |   |                          |                 |                       |                             |             | (0.80            | ))            |                  |                               | T FORMATION)                         |   |                      |  |            |              |                          |
| 2 - 03 Fe            | eb 22 093<br>D | 30 2                   | .00           | D 9                              |                        | 2.00 - 2.15                   | SPT S                   | 100 (25,0 for 0mm for                       | 2.00 Dry                 |                 |                       |                             |             | 2.00             | +57.8         |                  | Extremely we                  | ak orangish brow                     | IN MUDSTONE.  |                      | _  |            |              | - 28                     |
| 09 Fel<br>2.00       | eb 22 072      | 27                     |               |                                  |                        |                               |                         | 60mm/62,38 for<br>10mm)<br>ID AR3762 Er 65% |                          |                 |                       |                             |             | (0.15            | 5) +57.7      | <sup>(2</sup>    | (WEALD CL/                    | Y FORMATION)                         |   | ey and reddish brown | 2.15-2.30 Recovered<br>firm light brown and li | ight grey  |              | 22                       |
| - 2.00               | 1.9            | 50                     |               |                                  |                        |                               |                         | ID AR3/02 EF 05%                            |                          |                 |                       |                             |             |                  |               |                  | CLAY.                         | Y FORMATION)                         |   |                      | mottled orangish brow                          | wn clay.   |              | 2.50                     |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          | 0.15 0.05       | 100                   | Water for the               | 4000/       | 14 -             | N             |                  |                               | ,                                    |   |                      |  |            |              |                          |
| 3 —                  |                |                        |               |                                  |                        |                               |                         |   |                          | 2.15 - 3.65     | NA<br>NA              | Water flush:<br>2.15 - 3.65 | 100%<br>rec | (1.50            | <i>י</i> ן    |                  |                               |                                      |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             | 3.65             | +56.2         | 2                |                               |                                      |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             | 0.00             | • 50.2        |                  | Very stiff, loc<br>(WEALD CL/ | ally stiff, grey CLA<br>Y FORMATION) | ΑY  |                      |  |            |              |                          |
| 4 —                  |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
| -                    |                |                        |               |                                  |                        |                               |                         |   |                          | 3.65 - 5.15     | 100<br>NA             | Water flush:                | 100%        | (1.60            |               | <u> </u>         |                               |                                      |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 | NA                    | 3.65 - 5.15                 | rec         | (1.00            | ))            |                  |                               |                                      |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      | 4.77-4.82 60 degrees smooth clean fissure.     |            |              |                          |
| 5 —                  |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             | 5.05             | . 54.0        |                  |                               |                                      |   |                      | 4.81-4.87 60 degrees<br>smooth clean fissure.  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             | 5.25             | +54.6         | 52               | Extremely to<br>grey MUDST    |                                      | laminated to very thinly b  | edded grey to light  | 5.15-5.20 AZCL                                 |            |              |                          |
| -                    |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  | (WÉALD CL/                    | Y FORMATION)                         |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          | 5.15 - 6.65     | 97<br>93              | Water flush:                | 100%        |                  | -,            |                  |                               |                                      |   |                      |  |            |              | 6.00                     |
| 0<br>-<br>-          |                |                        |               |                                  |                        |                               |                         |   |                          |                 | 93                    | 5.15 - 6.65                 | rec         | (1.55            | <b>)</b> )    |                  |                               |                                      |   |                      |  |            |              | SP                       |
| -                    |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      | 6.50-6.55 Very stiff lig                       | aht arev   |              |                          |
| -                    |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             | 6.80             | +53.0         |                  |                               |                                      |   |                      | clay.<br>6.65-6.80 Stiff to very               |            |              |                          |
| 7 —                  |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             | 0.00             | 100.0         |                  | MUDSTONE                      |                                      | inated to thinly bedded lig   | ht grey to grey      | grey clay.                                     | -          |              |                          |
| -                    |                |                        |               |                                  |                        |                               |                         |   |                          |                 | 100                   |                             |             |                  |               |                  | (WEALD CL/                    | Y FORMATION)                         |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          | 6.65 - 8.15     | 78<br>78              | Water flush:<br>6.65 - 8.15 | 100%<br>rec |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
| 8 —                  |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      | 7.90-8.08 Stiff to very grey and grey clay.    | Ū          |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             | (2.85            | 5)            |                  |                               |                                      |   |                      | 8.15-8.25 Very stiff da<br>clay.               | ark grey   |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      | 8.55-8.59 85 degrees                           | planar     |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          | 8.15 - 9.65     | 100<br>93             | Water flush:                | 100%        |                  |               |                  |                               |                                      |   |                      | smooth clean fracture                          | e.         |              |                          |
| 9 —                  |                |                        |               |                                  |                        |                               |                         |   |                          | 0.10 - 9.00     | 93                    | 8.15 - 9.65                 | rec         |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
| 09 Fe<br><u>9.65</u> | eb 22 162<br>D |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             | 9.65             | +50.2         | 22               |                               |                                      | OF EXPLORATORY HOLE   |                      |  |            |              | 9.65                     |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  | 50.2          |                  |                               | END                                  | UI EAFLUKATURY HULE   |                      |  |            |              |                          |
| 10 —                 |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
| General Rem          | arks           |                        | I             |                                  |                        | 1                             | I                       |   | 1                        |                 | 1 1                   | I                           |             | 1                |               |                  | Boring / Chisel               |                                      | _   | Groundwater E        |  |            | 1            | -                        |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  | epths D                       | uration (mins)                       | ΤοοΙ  | No. Depth            | Remarks  |            |              | Sealed                   |
|                      |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               |                  |                               |                                      |   |                      |  |            |              |                          |
| Notes                |                |                        |               |                                  |                        |                               |                         |   |                          |                 |                       |                             |             |                  |               | Status           |                               |                                      |   |                      | Borehole                                       |            |              |                          |
| For explanatio       | on of symbo    | ols and abl            | previations   | see Key to Exp                   | loratory Hole Record   | s. All                        | ject                    |   | ern Runway Project       | (NRP)           |                       |                             |             |                  |               | Status           |                               |                                      | Scale 1:50  | 2000 40:07 50        |  | _          |              |                          |
| depths and red       | duced level    | els in metre           | s. Stratum    | thickness given                  | n in brackets in depth |                               | ject No.<br>ried out fo | D2001-22<br>or VINCI Constru-               | ction T/A Taylor Wo      | odrow           |                       |                             |             |                  |               |                  | FINA                          | ∧∟                                   | Printed 24 Mar  |                      | AGS  |            | H1 MF        |                          |
|                      |                |                        |               |                                  |                        |                               |                         |   | ,                        |                 |                       |                             |             |                  |               |                  |                               |                                      | © Copyright SOC   | OTEC UK Limited      | ,100   |            | Sheet 1 of 1 |                          |



| Checke                     | C                         | <b>Depth</b><br>0.00 - 1.20<br>1.20 - 2.40 | 02 Feb                    | Dates<br>22 - 03 Feb 22<br>22 - 03 Feb 22 |   |                     |                                    |  | R67 Comacchio 305         DD/CG         KD         02 Feb 22         Depth         Dia. (mm)         Depth         D           Dando 3000         BB/BR         KD         02 Feb 22         9.50         200 <th>Casing<br/>h Dia. (mm)</th> <th>Depth</th> <th>Depth Related Remarks</th> <th></th> <th>Ground Le</th> <th>59.41 mOD</th> |                        |                       |                             |             |                   |      | Casing<br>h Dia. (mm) | Depth                           | Depth Related Remarks  |  | Ground Le                   | 59.41 mOD      |                            |
|----------------------------|---------------------------|--|---------------------------|---|---|---------------------|------------------------------------|--|---|------------------------|-----------------------|-----------------------------|-------------|-------------------|------|-----------------------|---------------------------------|--|--|-----------------------------|----------------|----------------------------|
| CP<br>Approve              | 2                         | 2.00 - 9.50                                |                           | 22 - 10 Feb 22                            |   | Rotary d            |                                    |  | R67 Comacch   |                        |                       | 17 Feb 22                   | 9.50        | 200               |      |                       |                                 |  |  | Coordinate<br>National G    |                | E 525456.82<br>N 140723.02 |
| СР                         |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  |  |                             |                | System                     |
| Da                         | te Ti                     | me   |                           | Samples                                   |   |                     | Field 1                            | Tests  | Samp / Test   | Coring<br>Depth        | TCR %<br>SCR %<br>RQD | Water added                 |             | Depth             | Leve | el Legend             |                                 | Strata Description   |  |                             | Water<br>Entry | Backfill                   |
|                            | eb 22 1                   | 000 0.05                                   | epth<br>5 - 0.10<br>).10  | Type & No.<br>B 1<br>D 2                  | Records   | Depth               | Туре                               | Records  | Casing Wate   |                        | %                     | Flush details               |             | (Thicknes<br>(0.2 | 25)  |                       | (TOPSOIL)                       | Main wn slightly sandy CLAY with frequent rootlets. Sand is fin                      | Detail   | ť                           | 5              | Flush cover 0.20           |
| 0.00<br>                   |                           |  | ) - 0.40                  | B 3                                       |   |                     |                                    |  |   |                        |                       |                             |             | 0.25              | +59  | 9.16                  | Stiff becomin<br>is fine.       | ig very stiff light grey mottled orange slightly sandy CLAY.                         | Sand   |                             |                | 0.20                       |
| -                          |                           |  | ).70                      | D 4                                       |   |                     |                                    |  |   |                        |                       |                             |             | (0.9              | 95)  |                       |                                 |  |  |                             |                |                            |
| 1 - 03 F<br>2.00<br>- 02 F |                           | 200<br>Dry 1<br>600                        | 1.20                      | D 5                                       |   | 1.00<br>1.20 - 1.55 | HV<br>SPT S                        | p >188kPa, r N/A<br>50 (8,11/15,19,16 for<br>50mm) | 0.00 Dry  |                        |                       |                             |             | 1.20              | +58  | 8.21                  | Very stiff ora                  | ngish brown mottled grey CLAY.   |  |                             |                |                            |
| 0.00                       |                           | Dry  |                           |   |   |                     |                                    | ID AR3762 Er 65%                                   |   |                        |                       |                             |             | 3.0)              | 30)  |                       | (WEALD CL/                      | AY FORMATION)  |  |                             |                |                            |
| 2 —                        |                           |  | 1.80<br>2.00              | D 6<br>D 7                                |   | 2.00 - 2.21         | SPT S                              | 100 (23,2 for<br>5mm/49,51 for 50mm)               | 2.00 Dry  |                        |                       |                             | 1           | 2.00              | +57  | 7.41                  | Stiff to very s                 | tiff light brown mottled orangish brown becoming brownis                             | 2.00-2.15 Recovere   | ed as soft to               |                |                            |
| 0.00                       |                           | 700<br>Dry<br>0730                         |                           |   |   |                     |                                    | refusal<br>ID AR3762 Er 65%                        |   |                        |                       |                             |             |                   |      |                       | mottled dark<br>(WEALD CL/      | orangish brown CLAY.<br>AY FORMATION)  | 2.25-2.55 Frequent<br>to 100x100x5mm) of                         | lenses (up<br>of firm light |                | 2.50                       |
| 2.00                       |                           | Dry  |                           |   |   |                     |                                    |  |   | 2.00 - 3.50<br>(101mm) | 100<br>NA<br>NA       | Water flush:<br>2.00 - 3.50 | 100%<br>rec | (1.3              | 30)  |                       |                                 |  | grey clay.<br>2.67-2.69 Firm light<br>2.76-2.77 Firm light       | grey clay.                  |                | 2.30                       |
| 3 —                        |                           |  |                           |   |   |                     |                                    |  |   | (1011111)              |                       | 2.00 - 0.00                 | 100         |                   |      |                       |                                 |  | 2.86-2.88 20 degree<br>laminae of light gree<br>2.88-3.08 Pocket | / clay.                     |                |                            |
| -                          |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             | 3.30              |      | 6.11                  | brownish are                    | wnish grey mottled light brown becoming dark grey mottle<br>y CLAY.<br>AY FORMATION) | d light (20x20x20mm) of fi<br>clay.<br>3.50-3.55 AZCL            | rm light grey               |                |                            |
| 4 —                        |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             | 3.88              | +55  | 5.53                  | Extremely to                    | very weak thickly laminated to very thinly bedded grey to                            | dark 3.90 Thin laminae o   | f grey clay.                |                |                            |
| -                          |                           |  |                           |   |   |                     |                                    |  |   | 3.50 - 5.00<br>(101mm) | 97<br>65<br>65        | Water flush:<br>3.50 - 5.00 | 100%<br>rec |                   |      |                       | grey MUDST<br>(WEALD CL/        | ONE.<br>AY FORMATION)  |  |                             |                |                            |
|                            |                           |  |                           |   |   |                     |                                    |  |   | ~ /                    |                       |                             |             |                   |      |                       |                                 |  | 4.45-4.60 Stiff to ve<br>grey clay.                              | ry stiff light              |                |                            |
| 5 —                        |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  | 5.00-5.10 Stiff to ve<br>grey clay.                              | ry stiff light              |                |                            |
| -                          |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  |  |                             |                |                            |
| -                          |                           |  |                           |   |   |                     |                                    |  |   | 5.00 - 6.50<br>(101mm) | 100<br>73<br>73       | Water flush:<br>5.00 - 6.50 | 100%<br>rec | (3.4              | 12)  |                       |                                 |  | 5.85-6.15 Very stiff   | light grey to               |                |                            |
| 6 —                        |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  | grey clay.<br>6.30-6.38 90 degre                                 | es nlanar                   |                | 6.00<br>SP                 |
| -                          |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  | smooth with infill of silt.                                      |                             |                |                            |
| 7 —                        |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  | 6.82-6.86 Very stiff<br>clay.                                    | light grey                  |                |                            |
| -                          |                           |  |                           |   |   |                     |                                    |  |   | 6.50 - 8.00<br>(101mm) | 100<br>97<br>97       | Water flush:<br>6.50 - 8.00 | 100%<br>rec | 7.30              | +52  | 2.11                  |                                 | weak thickly laminated to very thinly bedded grey locally                            | ight 7.27-7.35 90 degree   |                             |                |                            |
| -                          |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       | grey MUDST<br>(WEALD CL/        | ONE.<br>AY FORMATION)  |  |                             |                |                            |
| 8 —                        |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  |  |                             |                |                            |
| -                          |                           |  |                           |   |   |                     |                                    |  |   |                        | 100                   |                             |             | (2.2              | 20)  |                       |                                 |  |  |                             |                |                            |
| 9 —                        |                           |  |                           |   |   |                     |                                    |  |   | 8.00 - 9.50<br>(101mm) | 100<br>100<br>100     | Water flush:<br>8.00 - 9.50 | 100%<br>rec |                   |      |                       |                                 |  |  |                             |                |                            |
| - 10 F                     |                           | 730  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  |  |                             |                |                            |
| - 0.00                     |                           | Dry  |                           |   |   |                     |                                    |  |   |                        |                       |                             | I.          | 9.50              | +49  | 9.91                  |                                 | END OF EXPLORATORY HOLE  |  |                             |                | 9.50                       |
| 10 —                       |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  |  |                             |                |                            |
| General Rei                | narks                     |  |                           |   |   |                     | <u>I</u>                           | I  | 1   | 1                      |                       | 1                           |             | 1                 |      |                       | <br>Boring / Chisell<br>epths D |  | water Entries<br>Depth Remarks                                   |                             |                | Sealed                     |
|                            |                           |  |                           |   |   |                     |                                    |  |   |                        |                       |                             |             |                   |      |                       |                                 |  |  |                             |                |                            |
| Notes                      |                           |  |                           |   |   | D                   | hiect                              | Caturick North                                     | ern Runway Proje  |                        |                       |                             |             |                   |      | Status                |                                 | Scale 1:50   | Borehole   |                             |                |                            |
| For explanat depths and r  | ion of syml<br>educed lev | bols and ab<br>vels in metre               | breviation<br>es. Stratur | s see Key to Exp<br>n thickness giver     | oloratory Hole Record<br>n in brackets in depth | n column. Pro       | oject<br>oject No.<br>rried out fr | D2001-22   | ction T/A Taylor W  |                        |                       |                             |             |                   |      |                       | FINA                            |  | AGS  | В                           | H2 MF          |                            |
|                            |                           |  |                           |   |   | Car                 | rried out fo                       |  | aon i/a layiui W  | JUUIUW                 |                       |                             |             |                   |      |                       |                                 | © Copyright SOCOTEC UK Lin   | ited AGS   |                             | Sheet 1 of 1   |                            |



| Checked                    | Dep                |                      | Dates                                  |                        | Meth                         |                           |   | Equipment                |                        |                       | ger Logged                  |               | lole             | Cas    |                  | Depth Related Remarks  |  |                          |                | SOCOTEC                    |
|----------------------------|--------------------|----------------------|--|------------------------|------------------------------|---------------------------|---|--------------------------|------------------------|-----------------------|-----------------------------|---------------|------------------|--------|------------------|--|--|--------------------------|----------------|----------------------------|
| СР                         | 0.00 -<br>1.20 - 2 | 2.00 02 F            | eb 22 - 02 Feb 22<br>eb 22 - 02 Feb 22 |                        | Hand dug ins<br>Cable percus | ion drilling.             |   | Hand tools<br>Dando 3000 |                        | BR K                  | D 02 Feb 22                 | Depth<br>2.00 | Dia. (mm)<br>200 | 2.00   | Dia. (mm)<br>200 | Depth Remarks  |  | Ground Lev<br>Coordinate |                | 59.25 mOD<br>E 525400.25   |
|                            | 2.00 -             | 9.75 04 F            | eb 22 - 08 Feb 22                      |                        | Rotary core                  |                           |   | R67 Comacchio            |                        |                       | D 15 Feb 22                 | 9.75          | 146              | 9.75   | 146              |  |  | National G               |                | E 525400.25<br>N 140573.03 |
| Approved                   |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  | National Of              |                | System                     |
| СР                         |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                | 2                          |
|                            | L                  |                      |  |                        |                              |                           |   |                          |                        | TCP %                 |                             |               | I                |        |                  |  |  |                          |                |                            |
| Date                       | Time               |                      | Samples                                |                        |                              | Field                     |   | Samp / Test              | Coring<br>Depth        | TCR %<br>SCR %<br>RQD | Water added                 |               | Depth            | Level  | Legend           |  |  | ise                      | Water<br>Entry | Backfill                   |
| 0 Casing                   | Water              | Depth<br>0.05 - 0.10 | Type & No.<br>B 1                      | Records                | Depth                        | Туре                      | Records                                     | Casing Water             | (Diameter)             | %                     | Flush details               | •             | (Thickness       | 5)     |                  | Main (TOPSOIL)   | Detail   |                          | 5              | Flush cover                |
| - 02 Feb 22<br>- 0.00      | 0800<br>Dry        | 0.05 - 0.10          | D 2                                    |                        |                              |                           |   |                          |                        |                       |                             |               | (0.4)            | 0)     |                  | Soft light brown slightly sandy CLAY with frequent rootlets. Sand is fine.   |  |                          |                | 0.20                       |
| -                          |                    | 0.45 - 0.55          | В 3                                    |                        |                              |                           |   |                          |                        |                       |                             |               | 0.40             | +58.85 |                  | Firm light greyish brown slightly sandy CLAY with frequent pockets   | _  |                          |                | 22                         |
| -                          |                    | 0.60                 | D 4                                    |                        |                              |                           |   |                          |                        |                       |                             |               | (0.6)            | 0)     |                  | (1x1x1mm) of orangish red fine sand. Sand is fine.<br>(WEALD CLAY FORMATION)   |  |                          |                | 22                         |
| -                          |                    |                      | 5.                                     |                        | 1.00                         |                           | . 400 D N/A                                 |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
| 1                          |                    | 1.00 - 1.10<br>1.20  | B 5<br>D 6                             |                        | 1.00<br>1.20 - 1.63          | HV<br>SPT S               | p >188kPa, r N/A<br>50 (7,11/13,15,18,4 for | 1.20 Dry                 |                        |                       |                             |               | 1.00             | +58.25 |                  | Very stiff light grevish brown slightly sandy CLAY with frequent pockets<br>(1x1x1mm) of orangish red fine sand. Sand is fine. |  |                          |                |                            |
| -                          |                    | 1.20 - 1.65          |  |                        | 1.20 - 1.05                  |                           | 50mm)                                       | 1.20 Dry                 |                        |                       |                             |               |                  |        |                  | (WEALD CLAY FORMATION)   |  |                          |                |                            |
|                            |                    |                      |  |                        |                              |                           | ID AR3762 Ér 65%                            |                          |                        |                       |                             |               | (1.0             | 0)     |                  |  |  |                          |                |                            |
| -                          |                    | 1.80                 | D 8                                    |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
| 2 - 04 Feb 22              | 0730               | 2.00 - 2.45          | D 9                                    |                        | 2.00 - 2.35                  | SPT S                     | 100 (21,4 for<br>5mm/23,27,31,19 for        | 2.00 Dry                 |                        |                       |                             | 1             | 2.00             | +57.25 |                  | Extremely to very weak light grey MUDSTONE.  | 2.10-2.30 Drilling dist  | urbed due                |                |                            |
| 2.00<br>04 Feb 22          | Dry                |                      |  |                        |                              |                           | 40mm)                                       |                          | 2.00 - 2.55            | 82<br>NA              | Water flush:                | 100%          | (0.5             | 5)     |                  | (WEALD CLAY FORMATION)   | to SPT. Recovered as<br>firm light yellowish bro                 | s soft to                |                |                            |
| - 2.00                     | 0.70               |                      |  |                        |                              |                           | ID AR3762 Ér 65%                            |                          | (101mm)                | NA                    | 2.00 - 2.55                 | rec           | 2.55             | +56.70 |                  |  | mottled light grey clay  | /.                       |                | 2.50                       |
| 07 Feb 22<br>2.00          | 0415<br>0.70       |                      |  |                        |                              |                           |   |                          |                        | 0                     |                             |               |                  |        |                  | NO RECOVERY  |  |                          |                |                            |
| 3 —                        | Ĩ                  |                      |  |                        |                              |                           |   |                          | 2.55 - 3.25<br>(101mm) | NA<br>NA              | Water flush: 2.55 - 3.25    | 100%<br>rec   | (0.7             | 0)     |                  |  |  |                          |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          | (1011111)              |                       | 2.00 - 0.20                 | 100           | 3.25             | +56.00 |                  |  |  | nht grev                 |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  | Extremely to very weak thinly to thickly laminated light grey MUDSTONE. (WEALD CLAY FORMATION)                                 | mottled light orangish<br>clay with frequent red                 | brown                    |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  | staining.  |                          |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          | 0.05                   | 100<br>67             |                             | 1000          |                  |        |                  |  | 3.43 5 degrees plana<br>fissure stained light b                  | rownish                  |                |                            |
| 4                          |                    |                      |  |                        |                              |                           |   |                          | 3.25 - 4.75<br>(101mm) | 67<br>67              | Water flush:<br>3.25 - 4.75 | 100%<br>rec   |                  |        |                  |  | grey.<br>3.43-3.55 Very stiff gr                                 | ey clay.                 |                |                            |
| -                          |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  | 3.85-3.90 Very stiff lig<br>clay.                                | ht grey                  |                |                            |
| _ 07 Feb 22                |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  | 4.25-4.55 Very stiff lig   | ht grey to               |                |                            |
| - <u>2.00</u><br>08 Feb 22 | 0.40<br>0730       |                      |  |                        |                              |                           |   |                          |                        | 100                   |                             |               |                  |        |                  |  | grey clay.<br>4.75-4.82 Very stiff lig                           | iht grey                 |                |                            |
| 5 _ 2.00                   | 0.40               |                      |  |                        |                              |                           |   |                          | 4.75 - 5.25            | 86                    | Water flush:                | 100%          |                  |        |                  |  | clay.<br>4.87 0 degrees plana                                    | r smooth                 |                |                            |
| -                          |                    |                      |  |                        |                              |                           |   |                          | (101mm)                | 70                    | 4.75 - 5.25                 | rec           |                  |        |                  |  | clean fracture.<br>4.87-4.90 85 degree                           | planar                   |                |                            |
| -                          |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  | smooth clean fracture<br>4.90 0 degree planar                    |                          |                |                            |
| -                          |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  | clean fracture.<br>5.07 0 degree planar                          |                          |                |                            |
| 6                          |                    |                      |  |                        |                              |                           |   |                          | 5.25 - 6.75            | 100<br>100            | Water flush:                | 100%          |                  |        |                  |  | clean fracture.  |                          |                | 6.00                       |
| -                          |                    |                      |  |                        |                              |                           |   |                          | (101mm)                | 100                   | 5.25 - 6.75                 | rec           |                  |        |                  |  | 5.50 Becoming locally  | y weak.                  |                | SP                         |
| -                          |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               | (0.5)            |        |                  |  |  |                          |                |                            |
| -                          |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               | (6.5             | 0)     |                  |  |  |                          |                |                            |
| -                          |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
| 7 —                        |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
| -                          |                    |                      |  |                        |                              |                           |   |                          |                        | 100                   |                             |               |                  |        |                  |  | 7 40 7 55 Von/ stiff a   | ov to light              |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          | 6.75 - 8.25<br>(101mm) |                       | Water flush:<br>6.75 - 8.25 | 100%<br>rec   |                  |        |                  |  | 7.40-7.55 Very stiff gr<br>grey clay.<br>7.65-7.90 Very stiff gr | ey to light              |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          | (10111111)             |                       | 0.75 - 0.25                 | Tec           |                  |        |                  |  | 7.65-7.90 Very stiff gr<br>grey clay.                            | ey to light              |                |                            |
| 8 —                        |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
| 9 —                        |                    |                      |  |                        |                              |                           |   |                          | 8.25 - 9.75            | 100<br>83             | Water flush:                | 100%          |                  |        |                  |  | 9.00-9.10 Very stiff lig   | iht arev                 |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          | (101mm)                | 83                    | 8.25 - 9.75                 | rec           |                  |        |                  |  | clay.  |                          |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  | 9.20-9.35 Very stiff lig<br>clay.                                | nir Arey                 |                |                            |
| - 08 Feb 22<br>- 2.00      | 1700<br>Drv        |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               | 0                |        |                  |  |  |                          |                |                            |
| -                          |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               | 9.75             | +49.50 |                  | END OF EXPLORATORY HOLE  |  |                          |                | 9.75                       |
| 10 —                       |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
| General Remarks            |                    |                      |  |                        | 1                            | 1                         |   |                          | 1                      |                       |                             |               |                  |        | Hard B           | Boring / Chiselling Groundwater  | Entries  |                          |                |                            |
| Concrat ReflidIKS          |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  | Depths Duration (mins) Tool No. Depth  |  |                          |                | Sealed                     |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |
| Notes                      |                    |                      |  |                        |                              |                           | -   |                          |                        |                       |                             |               |                  |        | Status           |  | Borehole   |                          |                |                            |
| For explanation of         | symbols a          | nd abbreviati        | ons see Key to Exp                     | ploratory Hole Record  | IS. All                      | oject<br>No               |   | ern Runway Project       | (NRP)                  |                       |                             |               |                  |        |                  | Scale 1:50   |  | -                        |                | _                          |
| depths and reduced         | a levels in        | metres. Stra         | tum thickness give                     | n in brackets in depth |                              | oject No.<br>rried out fe | D2001-22<br>VINCI Construe                  | ction T/A Taylor Wo      | odrow                  |                       |                             |               |                  |        |                  | FINAL Printed 24 Mar 2022 12:37:53   | AGS  | B                        | BH3 MF         | -                          |
|                            |                    |                      |  |                        |                              |                           |   | an internation we        |                        |                       |                             |               |                  |        |                  | © Copyright SOCOTEC UK Limited   | AUS  |                          | Sheet 1 of 1   |                            |
|                            |                    |                      |  |                        |                              |                           |   |                          |                        |                       |                             |               |                  |        |                  |  |  |                          |                |                            |





©2021 SOCOTEC UK Limited

#### APPENDIX C INSTRUMENTATION AND MONITORING

Monitoring Installation Summary Groundwater Monitoring Telemetry Data Table C1 Table C2 Figures C3 to C5



# **Monitoring Installations Summary**

| Instrument<br>Reference | Instrument Type<br>(See Notes) | Installation<br>Date,<br>dd/mm/yyyy | Pipe Diameter,<br>mm | Instrument Base,<br>mbgl | Response Zone<br>Range,<br>mbgl | Pipe Top<br>Details | Headworks   | Remarks   |
|-------------------------|--------------------------------|-------------------------------------|----------------------|--------------------------|---------------------------------|---------------------|-------------|---|
| BH1 MF (1)              | SP                             | 09/02/2022                          | 50                   | 6.00                     | 2.50 to 6.00                    | Gas tap             | Flush cover | Remote Data Logger<br>installed at 5.70m. Top of<br>transducer cable at GL.<br>Serial number 1330257. |
| BH2 MF (1)              | SP                             | 10/02/2022                          | 50                   | 6.00                     | 2.50 to 6.00                    | Gas tap             | Flush cover | Remote Data Logger<br>installed at 5.70m. Top of<br>transducer cable at GL.<br>Serial number 1330259. |
| BH3 MF (1)              | SP                             | 08/02/2022                          | 50                   | 6.00                     | 2.50 to 6.00                    | Gas tap             | Flush cover | Remote Data Logger<br>installed at 5.70m. Top of<br>transducer cable at GL.<br>Serial number 1330263. |

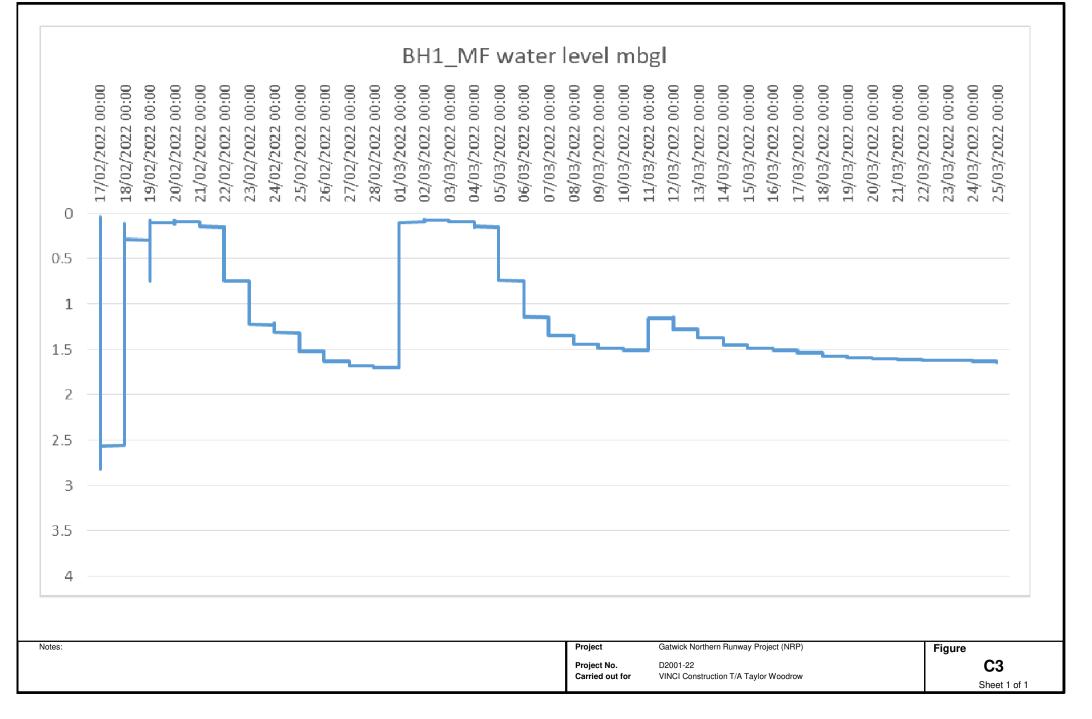




## **Groundwater Monitoring**

| Instrument<br>Reference | Instrument<br>Type | Instrument Base,<br>mbgl | Date Time<br>dd/mm/yyyy hh:mm:ss | Groundwater<br>depth,<br>mbgl | Comments                        |
|-------------------------|--------------------|--------------------------|----------------------------------|-------------------------------|---------------------------------|
| BH1 MF (1)              | SP                 | 6.00                     | 17/02/2022 16:10:00              | 1.44                          | Taken prior to well development |
| BH1 MF (1)              | SP                 | 6.00                     | 24/03/2022 11:45:00              | 1.60                          |                                 |
| BH2 MF (1)              | SP                 | 6.00                     | 17/02/2022 14:12:00              | 2.83                          | taken prior to well development |
| BH2 MF (1)              | SP                 | 6.00                     | 24/03/2022 11:55:00              | 3.40                          |                                 |
| BH3 MF (1)              | SP                 | 6.00                     | 17/02/2022 16:50:00              | 2.38                          | Taken prior to well development |
| BH3 MF (1)              | SP                 | 6.00                     | 24/03/2022 12:05:00              | 3.10                          |                                 |



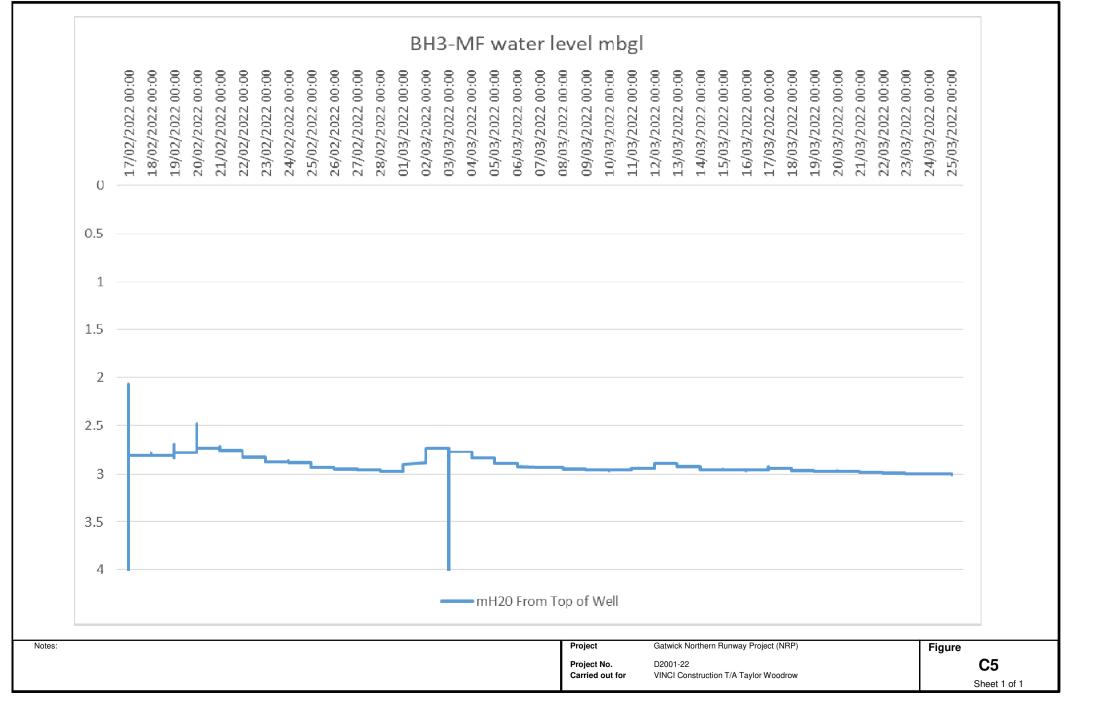


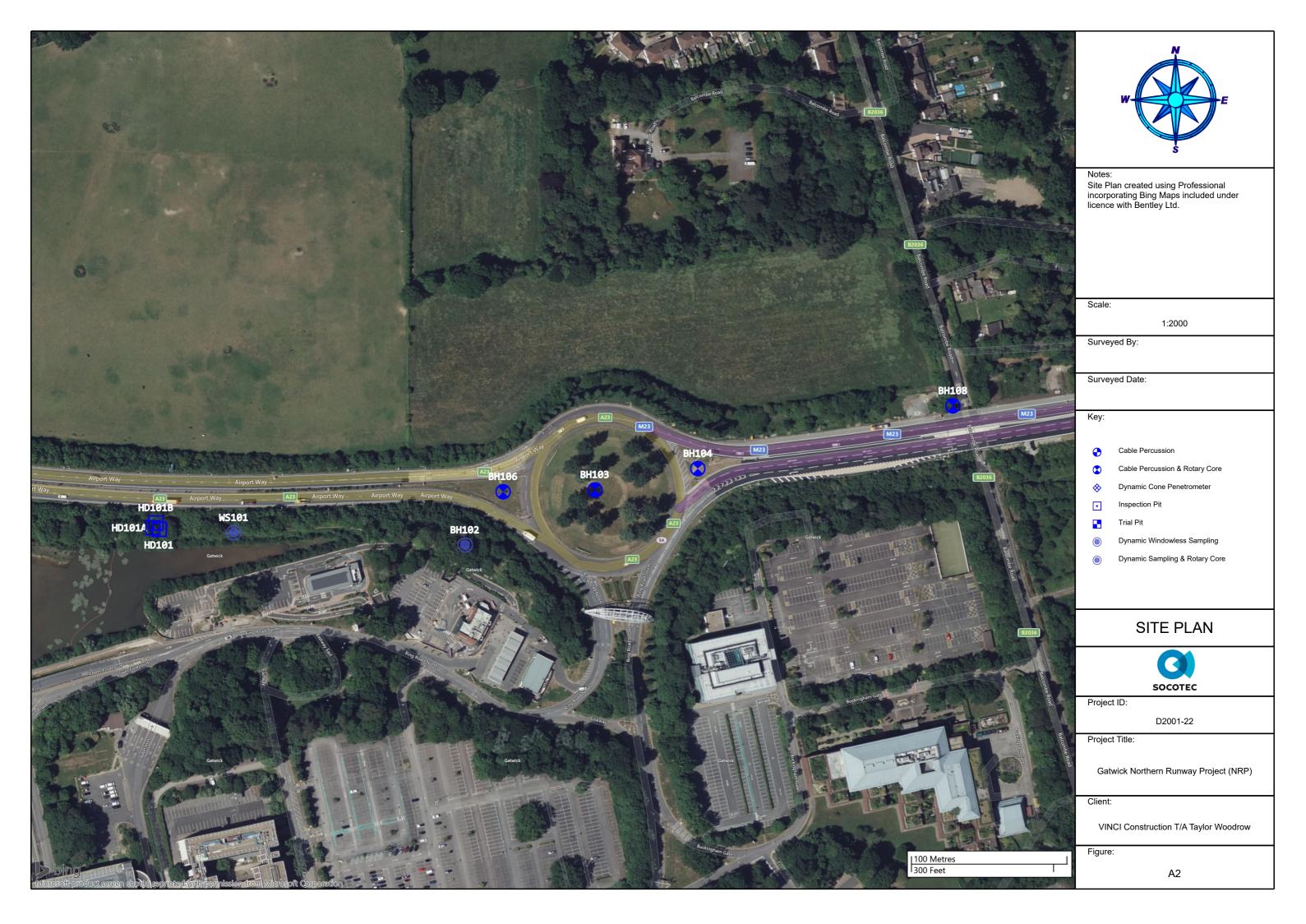


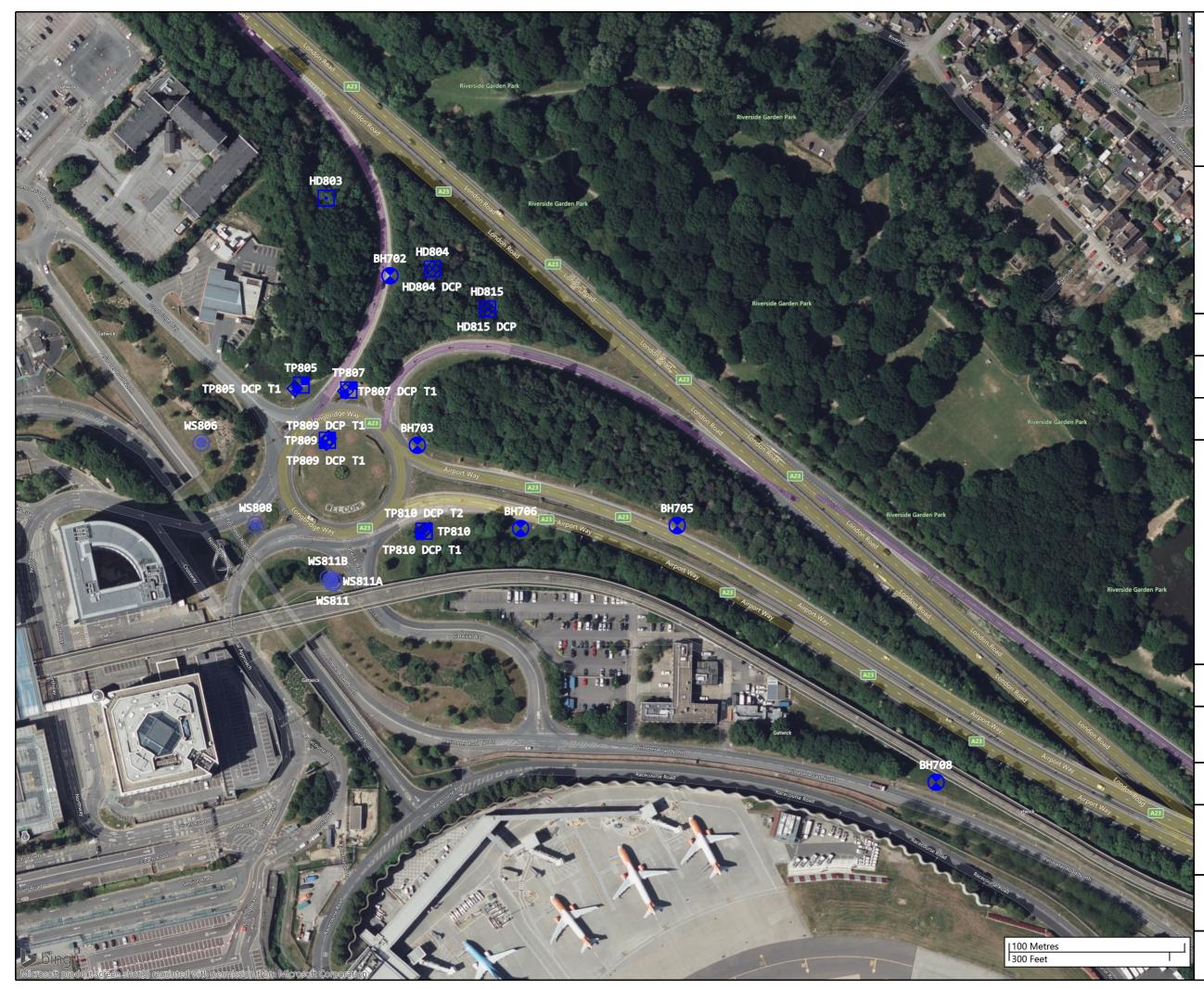
|        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | E                | ЗH               | 2_               | M                | Fw               | /at              | er               | lev              | el                         | mł               | ogl              |                  |                         |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                        |
|--------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------------|------------------|------------------|------------------|-------------------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------------|
|        | 17/02/2022 00:00 | 18/02/2022 00:00 | 19/02/2022 00:00 | 20/02/2022 00:00 | 21/02/2022 00:00 | 22/02/2022 00:00 | 23/02/2022 00:00 | 24/02/2022 00:00 | 25/02/2022 00:00 | 26/02/2022 00:00 | 27/02/2022 00:00 | 28/02/2022 00:00 | 01/03/2022 00:00 | 02/03/2022 00:00 | 03/03/2022 00:00 | 04/03/2022 00:00 | 05/03/2022 00:00 | 06/03/2022 00:00 | 07/03/2022 00:00 | 08/03/2022 00:00 | 09/03/2022 00:00           | 10/03/2022 00:00 | 11/03/2022 00:00 | 12/03/2022 00:00 | 13/03/2022 00:00        | 4/03/2022 00:00 | 15/03/2022 00:00 | 16/03/2022 00:00 | 17/03/2022 00:00 | 18/03/2022 00:00 | 19/03/2022 00:00 | 20/03/2022 00:00 | 21/03/2022 00:00 | 22/03/2022 00:00 | 23/03/2022 00:00 | 24/03/2022 00:00 | 25/03/2022 00:00       |
| 0      | 17               | 18               | 19               | 20               | 21               | 22               | 23               | 24               | 25               | 26               | 27               | 28               | 01               | 02               | 03               | 04               | 02               | 06               | 07               | 08               | 60                         | 10               | 11               | 12               | 13                      | 14              | 13               | 16               | 17               | 18               | 19               | 20               | 21               | 22               | 23               | 24               | 25                     |
| 0.5    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                            |                  |                  |                  |                         |                 | +                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                        |
| 1      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                            |                  |                  |                  |                         |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                        |
| 1.5    |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                            |                  |                  |                  |                         |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                        |
| 2      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                            |                  |                  |                  |                         |                 | +                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                        |
| 2.5    | +                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                            |                  |                  |                  |                         |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                        |
| 3      | -                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                            |                  |                  |                  |                         |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                        |
| 3.5    | ╞                | _                | -                |                  | -                | -                | _                | _                | ~_               | _                | _                | _                |                  | 5                | ~                | -                | _                | _                | _                |                  | _                          |                  | _                |                  | _                       |                 |                  |                  | _                | _                | _                |                  |                  |                  |                  |                  | _                      |
| 4      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                            |                  |                  |                  |                         |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                        |
| Notes: |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | Pro              | ject<br>ject No<br>ried ou |                  | D                | 02001-2          | Northei<br>2<br>onstruc |                 |                  |                  | ,                |                  |                  |                  |                  | Fi               | gure             | С                | <b>4</b><br>eet 1 of 1 |

#### **Telemetry Data**











#### Notes:

Site Plan created using Professional incorporating Bing Maps included under licence with Bentley Ltd.

Scale:

1:2000

Surveyed By:

Surveyed Date:

| 12  |
|-----|
| ĸey |

| • | Cable Percussion               |
|---|--------------------------------|
|   | Cable Percussion & Rotary Core |
| ♦ | Dynamic Cone Penetrometer      |
| · | Inspection Pit                 |
|   | Trial Pit                      |
| ۲ | Dynamic Windowless Sampling    |
|   | Dynamic Sampling & Rotary Core |

#### SITE PLAN



Project ID:

D2001-22

Project Title:

Gatwick Northern Runway Project (NRP)

Client:

VINCI Construction T/A Taylor Woodrow

Figure:





#### Notes: Site Plan created using Professional incorporating Bing Maps included under licence with Bentley Ltd.

Scale:

1:2000

Surveyed By:

Surveyed Date:

| K | e | y |
|---|---|---|

| • | Cable Percussion               |
|---|--------------------------------|
| 2 | Cable Percussion & Rotary Core |
| ♦ | Dynamic Cone Penetrometer      |
| • | Inspection Pit                 |
| 8 | Trial Pit                      |
|   | Dynamic Windowless Sampling    |
| ۲ | Dynamic Sampling & Rotary Core |

#### SITE PLAN



Project ID:

D2001-22

Project Title:

Gatwick Northern Runway Project (NRP)

Client:

VINCI Construction T/A Taylor Woodrow

Figure:

# Key to Exploratory Hole Records



| recovered by SPT open shoe are shown as type D.         The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limitivalue (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also.         IV       in situ/field vane shear strength, peak (p) and remoulded (r), kPa         PP       Pocket penetrometer test, converted to shear strength, kPa         KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results present on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         SCR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture pacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture lndex - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where tore is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriat   |             |  |
|---|-------------|--|
| U       Driven time sample         UT       Driven time valit bude sample         V       Pushed time valit bude sample         P       Pushed pitten sample         CRR       COR mould sample         CRR       Core sample (from rotary core) taken for laboratory testing.         Disturbed       E         Core sample (from rotary core) taken for laboratory testing.       Disturbed         Disturbed       E         B       Buk sample (comprising more than one container as required)         Other       Water sample         W       Water sample         Commands to sample and taken one container as required)       Sequential sample reference numbers are assigned to every sample taken during hole construction.         Samples       Sequential sample reference numbers are assigned to every sample taken during hole construction.         Samples is taken non nocholic installions of every sample taken during hole construction.         Samples is taken non nocholic installions of every sample taken during hole construction.         Dynamic sampling includes window and windowless' sampling methods, with and without a sample iner respectively SAMPLING         Dynamic sampling includes window and windowless' sampling methods.         Samples is taken in tho include installions (is taken or gas) after hole construction         DYS       Dynamic sampling includes window and window  | SAMPLES     |  |
| U       Driven the sample         UT       Driven the wall tabe sample         VW       Pushed thin wall tabe sample         CR       CBR model sample         CR       CBR model sample         EKK       Block sample         C       Core sample (from rotary core) taken for laboratory testing.         Disturbed       E         D       Small sample (including samples recovered from SPT)         B       Buk sample         LB       Lage Buk sample (comprising more than one container as required)         Other       W         W are sample       Environmental chemistry samples (in more than one container where appropriate)         Commants to sample are leterance numbers are assigned to every sample taken during hole construction.         Samples       Sequential sample reference numbers are assigned to every sample taken during hole construction.         Samples is setup in table site instations (e water or gas) after hole construction.         Samples is able non bonehole instations (e water or gas) after hole construction.         Dynamic sampling includes window and windowless' sampling methods, with and without a sample liner respectively (e.c.) and diameter. Material retained as separate samples.         Particular Son SONT       Sander Ametration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO         SUP Are Sont Ard P  | Undisturbed |  |
| UT         Driven thin wall tube sample<br>TW         Pushed thin wall tube sample<br>CBR         CBR mould sample<br>CC         Core sample (from rotary core) taken for laboratory testing.           Disturbed         Stads sample<br>CBR         CBR sample<br>Bulk sample (including samples recovered from SPT)<br>B         Bulk sample (comprising more than one container as required)           CH         Water sample<br>CG         Gas sample (comprising more than one container as required)           Chreat<br>W         Water sample<br>CG         Salu sample (comprising more than one container as required)           Comments to<br>Samples         Salu sample (comprising more than one container as required)           Comments to<br>Samples of show on exploratory hole logs:<br>- subsamples         Salu sample<br>Firvironmental chemistry samples and sasing to there tube sampling has been attempted but no sample obtained (for whater reason).<br>Samples not show on exploratory hole logs:<br>- subsamples speciment stanken for on-site testing, ego point load testing<br>- subsamples speciment stanken for on-site testing, ego point load testing<br>- subsamples speciment stanken for on-site testing, ego point load testing<br>- subsamples required wind wand windowless' sampling methods, with and without a sample liner respectively<br>SAMPLING           DYNAMIC<br>SAMPLING         Dynamic sampling range showing tube / liner recovery (cic, and diameter. Material retained as separate samples.<br>L           Retained complete liner sample (with sample reference number)         IN STUFFELD TESTS <td></td> <td></td>   |             |  |
| TW     Pushed pits wall tobe sample       P     Pushed pits on sample       CBR     CBR mould sample       CBR     CBR mould sample       CBR     Core sample (from rotary core) taken for laboratory testing.       Disturbed     D       D     Small sample (including samples recovered from SPT)       B     Buk sample       LB     Large Buk sample (ancluding samples recovered from SPT)       B     Buk sample       CG     Gas sample       CB     Gas sample       CS     Soli sample       ES     Soli sample       EW     Water sample       Comments to     Sequential sample reference numbers are assigned to every sample taken during hole construction.       Samples not shown on exploratory hole logs:     - submples for participation borehole installations (in water or gas) after hole construction.       DYNAMIC     Dynamic sampling range showing tube / liner recovery (ec.) and dameter. Material retained as separate samples.       L     Retained complete liner sample (with sample reference number)       IN STUFFELD TESTS       SPT 5 or SPT C     Standard Penetration Test, open shoe (s) or solid cone ((), INe Standard Penetration Test is defined in BS ENISO (2476.3.2005-A12.011. The open shoe configuration is used without a sample iner unless stated to howise and any penetration under sample (or diversity is poild. Michae the lab 10.00 micres is defined in bS ENISO (2476.3.2005-A12.011. The open s   | -           |  |
| P         Public diston sample           CR         CBR mould sample           BLK         Block sample           BLK         Block sample           C         Core sample (including samples recovered from SPT)           B         Bulk sample           D         Small sample (including samples recovered from SPT)           B         Bulk sample           Large Bulk sample         Comprising more than one container as required)           Other         Comments           W         Water sample           Comments to         Sequential sample reference numbers are assigned to every sample taken during hole construction.           Samples         NR - No Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).           Samples not shown on exploratory hole logs:         - subsample reference numbers are assigned to every sample taken for on-site taken for on-si   |             |  |
| CBR         CBR mould sample           ELK         Biodx sample           C         Core sample (from rotary core) taken for laboratory testing.           Disturbed         D           Small sample (including samples recovered from SPT)           B         Buk sample           Large Buik sample (comprising more than one container as required)           Other           W         Water sample           ES         Soli sample           ES         Soli sample           EW         Water sample           Comments I         Sequential sample reference numbers are assigned to every sample taken during hole construction.           samples         NR           Sonples / specimens taken for on-site testing, ego point load testing           samples is not shown on exploratory hole log:           SMPLINO         Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively           SMPLINO         Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.           L         Retained complete liner annibe (with sample reference number)           NTVFLIDE TESTS         Set open shoe are shown as bype D.           SPT S or SPT C         Standard Panetration Test, open shoe are shown as bype D.           V/V   |             |  |
| BLK         Block sample           C         Core sample (from rotary core) taken for laboratory testing.           Disturbed         Small sample (including samples recovered from SPT)           B         Bulk sample           LB         Large Bulk sample (comprising more than one container as required)           Other         W           Water sample         Environmental chemistry samples (in more than one container where appropriate)           EW         Water sample           Comments to         Sequential sample reference numbers are assigned to every sample taken during hole construction.           Samples         NR - No Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).           Samples taken from borehole installations (le water or gas) after hole construction         Samples taken from borehole installations (le water or gas) after hole construction           DYS         Dynamic sampling includes window and windowless' sampling methods, with and without a sample liner respectively           SAMTLING         Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.           R tatiand complete liner sample (with sample reference number)         Samples taken from obta is given (might in the state obta in the state obta in the state obta in the state obta with an a signed without a sample liner unless stated otherwise.           SPT S or SPT C         Sanalidad Penetration Test, opan sho  | -           |  |
| C Core sample (from rotary core) taken for laboratory testing.<br>Disturbed Disturbed Disturbed Small sample (including samples recovered from SPT) B Bulk sample Large Bulk sample C Care sample (from rotary core) taken for laboratory testing. DM Water sample C Care sample Bulk sample C Care sample C Care sample (comprising more than one container as required) Other W Water sample C Care sample S Soli sample F E Soli sample C Soli sample S Soli sample C Source Soli sample C Source Soli Sample C Care sample / Environmental chemistry samples (in more than one container where appropriate) C Source Soli Sample S Soli sample S Soli sample C Source Soli Soli Sample C Source Soli Soli Soli Soli Soli Soli Soli Soli   |             | •  |
| Disturbed         Disturbed           D         Small sample (including samples recovered from SPT)           B         Bulk sample           LB         Large Bulk sample (comprising more than one container as required)           Other         W           W         Water sample           G         Gas sample           ES         Soli sample           EW         Weater sample           Comments to         Sequential sample reference numbers are assigned to every sample taken during hole construction.           Samples not shown on exploratory hole logs:         - subsamples / specimens taken for on-site testing, eg point load testing           - subsamples / specimens taken for on-site testing, eg point load testing         - subsamples / specimens taken for on-site testing, eg point load testing           CMAMIC         Dynamic sampling includes Window' and Windowless' sampling methods, with and without a sample liner respectively           SMPLING         Dynamic sampling trange showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.           R         N STUFFELD TEST           Standard Penetration Test, open shoe are shown as type D           IN STUFFELD TEST           Standard Penetration under self-weight in mm (SW) is noted. Where the test dive divers reach the limit value (statily 50) the total bore contrast equires in the stachinerwise. Sample recovered by SPT open shoe are shown a  |             | Block sample   |
| D         Small sample (including samples recovered from SPT)           B         Bulk sample           Large Bulk sample         Large Bulk sample (comprising more than one container as required)           Other         W           W         Water sample           G         Gas sample           Soll sample         Environmental chemistry samples (in more than one container where appropriate)           Comments to samples on to solve on the sampling has been attempted but no sample obtained (for whatever reason).           Samples not show on exploratory hole logs:         • subsamples / specimens taken from on-site testing, eg point load testing           • samples taken from borchole installations (ie water or gas Jafet hole construction         Dynamic sampling includes window and 'windowless' sampling methods, with and without a sample liner respectively SAMPLING           DYNMIC         Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.           L         Retained complete liner sample (with sample reference number)           IN STUPFIELD TESTS         Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-32005-A12011. The open shoe (S) or solid cone (C). The Standard Penetration Test is stated otherwise, and any penetration under sale strong thy. Deak (p) and remounded (r), kPa           V <i>in statifield</i> vane shear strength, peak (p) and remouded (r), kPa           PP   | С           | Core sample (from rotary core) taken for laboratory testing.   |
| B     Bulk sample       LB     Large Bulk sample (comprising more than one container as required)       Other     W       W     Water sample       G     Gas sample       ES     Soil sample       EW     Water sample       Comments to     Sequential sample reference numbers are assigned to every sample taken during hole construction.       Samples not hown on exploratory hole logs:     • subsamples / speciment taken for on-site testing exploratory and logs:       • subsamples / speciment taken for on-site testing exploratory and logs:     • subsamples / speciment taken for on-site testing exploratory and logs:       DYNAMIC     Dynamic sampling includes window and windowless' sampling methods, with and without a sample liner respectively       SMPLINE     Dynamic sampling includes window and windowless' sampling methods, with and without a sample liner respectively       SMPL     Retained complete liner sample (with sample reference number)       IN STUFFLED TESTS     Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-32005-A1:2011. The open shoe configuration is used without a sample liner unless stated otherwise. Sampli recovered by SPT open shoe are shown as type D.       The incremental blow courts are given in the Field Records column: each increment is 76 mulles stated otherwise. Sampli recovered by SPT open shoe are shown as type D.       The incremental blow courts are given in the Field Records column. Where the tet drive is obven (with bulke the limit walue (stause these  | Disturbed   |  |
| LB       Large Bulk sample (comprising more than one container as required)         Other       W         W       Water sample         G       Gas sample         ES       Soil sample         EW       Water sample         Comments to       Sequential sample reference numbers are assigned to every sample taken during hole construction.         NR = Ne Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).         Samples not shown on exploratory hole logs:       • subsamples / specimers taken for on-site testing, eg point load testing         • samples taken from burchele installations (ie water or gas) after hole construction       Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively SAMPLING         DYS       Dynamic sampling range showing tube / liner recovery (fcc.) and diameter. Material retained as separate samples.         L       Retained complete liner sample (with sample reference number)         NSTUFELD TESTS       Spr Sor SPT C         Standard Panetration Test, open shoe are shown as type D.       The incremental blow courts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mol (W) is noted. Where the full 300 mm test dive is achieved the total number of blows for the test divis [s presented as N = ** in the Test column. Where the total full soft is a symple liner respective). See Note 7 also.         V       <   | D           | Small sample (including samples recovered from SPT)  |
| Other         W         Water sample           G         Gas sample         Gas sample           ES         Soli sample         Environmental chemistry samples (in more than one container where appropriate)           Comments to         Sequential sample reference numbers are assigned to every sample taken during hole construction.           Samples         Sequential sample reference numbers are assigned to every sample taken during hole construction.           Samples not shown on exploratory hole logs:         - subsamples / specimers taken for on-site testing, eg point load testing           - subsamples / specimers taken for on-site testing, eg point load testing         - subsamples internet window and 'windowless' sampling methods, with and without a sample liner respectively           SMPLING         Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively           SMPLING         Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.           R         Ratialed complete liner sample (with sample reference number)           IN STUFIELD TESTS         Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO           22476-32005+A1:2011. The open shoe configuration is used without a sample liner unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = *1 in the Testot Journ   | В           | Bulk sample  |
| W     Water sample       G     Gas sample       ES     Soll sample       EW     Water sample       EW     Water sample       EW     Water sample       EW     Sequential sample reference numbers are assigned to every sample taken during hole construction.       Samples not shown on exploratory hole logs:     a samples is specimens taken for on site testing, ep point load testing       • subsamples / specimes taken for on site testing, ep point load testing     a sample site and for which window and windowless' sampling methods, with and without a sample iner respectively       SMPLING     Dynamic sampling includes 'window and 'windowless' sampling methods, with and without a sample liner respectively       SMPLING     Dynamic sample (specime state) for on-site testing, ep point load testing       DYS     Dynamic sample (with sample reference number)       IN STUFFELD TESTS     Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-32056-41.2011. The open shoe configuration is used without a sample liner unless shown otherwise. Sampling renovered by SPT open shoe are shown as type D.       IN stuffield vane shear strength, peak (p) and remoulded (r), kPa       PP     Pocket penetrometre test, converted as N =** in the Test (200 mm ites test dive) is presented as N =** in the Test (200 mm ites). See Note 7 also.       IN in stuffield vane shear strength, peak (p) and remoulded (r), kPa       PP     Pocket penetrometer test, converted to shear strength, kPA  | LB          | Large Bulk sample (comprising more than one container as required)   |
| G     Gas sample       ES     Soil sample       EW     Water sample       Environments to<br>samples     Sequential sample reference numbers are assigned to every sample taken during hole construction.<br>NR - No Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).<br>Samples not shown on exploratory hole logs: <ul> <li>subsamples / specimens taken for on-site testing, eg point load testing</li> <li>samples taken for borchole installations (ie water or gas) after hole construction</li> </ul> DYNAMIC<br>SAMPLING     Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample iner respectively<br>SAMPLING           DYS         Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.<br>L           Retained complete liner sample (with sample reference number)           IN SITUFIELD TESTS           SPT S or SPT C           Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO<br>22476-32005-41:2011. The open shoe configuration is used without a sample liner unless shown otherwise. Sampli<br>recovered by SPT open shoe are shown as type D.           The incremental blow counts are given in the Field Records column, where the tail advice is achieved the total<br>number of blows for the test drive is presented as N = " in the Test column. Where the total blow counts are given in the seating drive is given (without the N = prefix). See Note 7 also.<br>In situified vane shear strength, pask (Q) and remoulded (r), KPa           PP         Pocket penetrometer test, converted to s   | Other       |  |
| ES       Soil sample       Environmental chemistry samples (in more than one container where appropriate)         Comments in Sequential sample reference numbers are assigned to every sample taken during hole construction.       NR - No Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).         Samples not shown on exploratory hole logs:       • subsamples / specimens taken for on-site testing, esp oint load testing         • samples taken from borehole installations (ie water or gas) after hole construction       Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively         SMPLING       Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively         MAMPLING       Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.         L       Retained complete liner sample (with sample reference number)         IN STUFFIELD TESTS       SPTS or SPT C         Standard Penetration Test, open shoe are shown as type D.       The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limit value (usually 50) the total blow count beyond the seating drive is given inflow (without the N = prefix). See Note 7 also.         IV       in situfield vane shear strength, pea  | W           | Water sample   |
| EW         Water sample         Environmental chemistry samples (in more than one container where appropriate)           Comments to<br>samples         Sequential sample reference numbers are assigned to every sample taken during hole construction.           NR + No Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).<br>Samples not shown on exploratory hole logs:<br>• subsamples / specimens taken for on-site testing, eg point load testing<br>• samples taken from borehole instalations (ie water or gas) after hole construction           DYNAMIC<br>SAMPLING         Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively<br>SAMPLING           DYS         Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.<br>Retained complete liner sample (with sample reference number)           NSTUFLELD TESTS         Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO<br>22476-3:2005-A1:2011. The open shoe configuration is used without a sample liner unless stated otherwise.<br>Sample           SFT S or SPT C         Standard Penetration Test, open shoe (S) or solid cone (L). The Standard Penetration Test is defined to the vise.<br>and any penetration under sel-weight in the Field Records column; each increment is 75 mm unless stated otherwise.<br>and any penetration under sel-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total<br>number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows cent the total<br>number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows cent the total<br>numbe  | G           | Gas sample   |
| <ul> <li>Key Water sample j</li> <li>Sequential sample reference numbers are assigned to every sample taken during hole construction.</li> <li>Sequential sample reference numbers are assigned to every sample taken during hole construction.</li> <li>Samples not show no exploratory hole logs:         <ul> <li>subsamples / specimens taken for on-site testing, eg point load testing</li> <li>samples taken from borehole installations (ie water or gas) after hole construction</li> </ul> </li> <li>Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively</li> <li>SAMPLING</li> <li>Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.</li> <li>Retained complete liner sample (with sample reference number)</li> </ul> <li>IN STIV/FIELD TESTS</li> <li>SPT S or SPT C</li> <li>Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 242476-32064-41.2011. The open shoe configuration is used without a sample liner unless shown otherwise. Sampli recovered by SPT open shoe are shown as type D.</li> <li>The incremental blow cours are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SM) is noted. Where the ful 300 mm test drive is achieved the total number of blows for the test drive is presented as N = *** in the Test column. Where the test drive blows reach the limit value (usually S0) the total blow courbeyrol at east strength, kPa</li> <li>HV</li> <li>Had vane shear strength, peak (p) and remoulded (r), KPa</li> <li>PP cocket penetrometor test, converted to shear strength, kPa</li> <li>PP cocket penetrometer test, converted to shear strength, kPa</li> <li>Permeability tests - as defined in BS 5930:2015+A1:2020</li> <li>Total Core Recovery, %</li> <li>SCR</li> <li< td=""><td>ES</td><td>Soil sample</td></li<>   | ES          | Soil sample  |
| Comments to<br>samples         Sequential sample reference numbers are assigned to every sample taken during hole construction.<br>NR - No Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).<br>Samples not show no exploratory hole logs:  | EW          | $\sim$ Environmental chemistry samples (in more than one container where appropriate)  |
| samples         NR - No Recovery. Used where tube sampling has been attempted but no sample obtained (for whatever reason).<br>Samples not shown on exploratory hole logs: <ul></ul>  |             |  |
| Samples not shown on exploratory hole logs:         • subsamples / specimens taken for on-site testing, eg point load testing         • subsamples / specimens taken for on-site testing, eg point load testing         • subsamples / specimens taken for on-site testing, eg point load testing         • Samples taken from borehole installations (ie water or gas) after hole construction         DYNAMIC         SAMPLING         Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively         SAMPLING         DYS       Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.         L       Retained complete liner sample (with sample reference number)         IN STUF/FELD TESTS         SPT S or SPT C       Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-320054-A1:2011. The open shoe configuration is used without a sample liner unless shaw otherwise. Samplin recovered by SPT open shoe are shown as type D.         The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 3000 mm test drive is achieved the total number of blows for the test drive is porcental data (P).         VIV       in stuffield vane shear strength, peak (p) and remoulded (r), KPa         PP       Pocket penetrometer test, converted to shear strength, kPa   |             |  |
| <ul> <li>subsamples / specimens taken for on-site testing, eg point load testing</li> <li>samples taken form borehole installations (ie water or gas) after hole construction</li> <li>Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively</li> <li>SAMPLING</li> <li>Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples. Retained complete liner sample (with sample reference number)</li> <li>IN STU/FIELD TESTS</li> <li>SPT S or SPT C</li> <li>Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 24276-3:2005-A1:2011. The open shoe onshee configuration is used without a sample liner unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limit value (usually 50) the total blow count sare given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limit value (usually 50) the total blow counts are given (without the N = prefix). See Note 7 also.</li> <li>IV <i>in situ/</i>Tield vane shear strength, peak (p) and remoulded (r), kPa</li> <li>PP Pocket penetrometer test, converted to shear strength, RPa (P) = packer inflow (water pressure test). Results present on separate report sheets.</li> <li>PID VOC concentration using hand-held photo-ionisation detector, ppm</li> <li>DRLLING RECORDS</li> <li>Classification of discontinuity state - as defined in BS 5930:2015+A1:2020</li> <li>Total Core Recovery, %</li> <li>RQD Rock Quality Designation, %</li></ul>   |             |  |
| samples taken from borehole installations (ie water or gas) after hole construction DYNANIC SAMPLING Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively AMPLING DYS Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples. L Retained complete liner sample (with sample reference number) IN SITU/FIELD TESTS SPT S or SPT C Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-3:2005+A1:2011. The open shoe configuration is used without a sample liner unless shown otherwise. Sampli recovered by SPT open shoe are shown as type D. The incremental blow counts are given in the Field Records column: each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = * in the Test column. Where the test drive biows reach the limit value (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also. IV in <i>situl</i> field vane shear strength, peak (p) and remoulded (r), kPa PP Pocket penetrometer test, converted to shear strength, kPa PP Pocket penetrometer test, converted to shear strength, kPa PP DC Cocconcentration using hand-held photo-ionisation detector, ppm DILLING RECORDS Classification of discontinuity state - as defined in BS 5930:2015+A1:2020 TCR Solid Core Recovery, % ROD Rock Quality Designation, % If Fracture spacing, mm presented as minimum, mode (or 'typical' value) and maximum spacing. FI FI Fracture spacing, mm presented as minimum, mode (or 'typical' value) and maximum spacing. FI FI Fracture spacing, mm presented as minimum, mode (or 'typical' value) and maximum spacing. FI FI Fracture spacing, mm presented as minimum, mode (or 'typical' value) and maximum spacing. FI FI Fracture spacing, mm presented as minimum, recore (or non- |             |  |
| SAMPLING         Item to the term of the term on the term of the term on the term of the term of the term on the term of the term of the term on the term of the term of the term on the term of the term of the term on the term of the term of the term on the term of the term of the term on the term of the term of the term on the term of the term on the term of the term                                   |             |  |
| SAMPLING         Item to the test of the sample of the receiver (rec.) and diameter. Material retained as separate samples.           DYS         Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.           L         Retained complete liner sample (with sample reference number)           IN STU/FIELD TESTS           SPT S or SPT C         Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-3:2005+A1:2011. The open shoe are shown as type D.           The incremental blow courts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive ibows reach the limit value (usually 50) the total blow court beyond the seating drive is given (without the N = prefix). See Note 7 also.           IV         in situfield vane shear strength, peak (p) and remoulded (r), kPa           PP         Pocket penetrometer test, converted to shear strength, kPa           KFH, KRH, KPI         Permeability tests: KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results present on separate report sheets.           PID         VOC concentration using hand-held photo-ionisation detector, ppm           DRILLING RECORDS         Classification of discontinuity state - as defined in BS 5930:2015+A1:2020           TCR         Total Core Recovery, %           SCR         Solid Core Recovery, %           SCR  | DYNAMIC     | Dynamic sampling includes 'window' and 'windowless' sampling methods, with and without a sample liner respectively   |
| L         Retained complete liner sample (with sample reference number)           IN SITU/FIELD TESTS         Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-3:2005+A1:2011. The open shoe configuration is used without a sample liner unless shown otherwise. Sample recovered by SPT open shoe are shown as type D.           The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limit value (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also.           IV         in situifield vane shear strength, peak (p) and remoulded (r), kPa           HV         Hand vane shear strength, peak (p) and remoulded (r), kPa           FP         Pocket penetrometer test, converted to shear strength, kPa           PP         Pocket penetrometer test, converted to shear strength, kPa           PD         VOC concentration using hand-held photo-ionisation detector, ppm           DRILLING RECORDS         Classification of discontinuity state - as defined in BS 5930:2015+A1:2020           TCR         Total Core Recovery, %           SCR         Solid Core Recovery, %           RQD         Rock Quality Designation, %           If         Fracture Index - presented as minimum, mode (or typical' v   |             | ,  |
| IN SITU/FIELD TESTS         SPT S or SPT C       Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-3:2005+A1:2011. The open shoe aconfiguration is used without a sample liner unless shown otherwise. Sample recovered by SPT open shoe are shown as type D.         The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows creach the limit value (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also.         IV       in situ/field vane shear strength, peak (p) and remoulded (r), kPa         HV       Hand vane shear strength, peak (p) and remoulded (r), kPa         PP       Pocket penetrometer test, converted to shear strength, kPa         RKFH, KRH       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results present on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRLLLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         CR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture Index - presented as minimum, mode (or 'typical' value) and maximum spacing.         FII       Fra  | DYS         | Dynamic sampling range showing tube / liner recovery (rec.) and diameter. Material retained as separate samples.   |
| SPT S or SPT C       Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-3:2005+A1:2011. The open shoe configuration is used without a sample liner unless shown otherwise. Sample recovered by SPT open shoe are shown as type D.         The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limit value (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also.         IV       in situ/field vane shear strength, peak (p) and remoulded (r), kPa         HV       Hand vane shear strength, peak (p) and remoulded (r), kPa         PP       Pocket penetrometer test, converted to shear strength, kPa         KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results present on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture pacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture index - presented as momber of fractures   | L           | Retained complete liner sample (with sample reference number)  |
| SPT S or SPT C       Standard Penetration Test, open shoe (S) or solid cone (C). The Standard Penetration Test is defined in BS EN ISO 22476-3:2005+A1:2011. The open shoe configuration is used without a sample liner unless shown otherwise. Sample recovered by SPT open shoe are shown as type D.         The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limit value (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also.         IV       in situ/field vane shear strength, peak (p) and remoulded (r), kPa         PP       Pocket penetrometer test, converted to shear strength, kPa         KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results present on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture Index - presented as minimum, mode (or 'typical' value) and maximum spacing).         NI       Non-intact - used to  |             | TS   |
| The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limit value (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also.         IV       in situ/field vane shear strength, peak (p) and remoulded (r), kPa         HV       Hand vane shear strength, peak (p) and remoulded (r), kPa         PP       Pocket penetrometer test, converted to shear strength, kPa         KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results present on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         SCR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture lndex - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used to  |             |  |
| and any penetration under self-weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limit value (usually 50) the total blow count beyond the seating drive is given (without the N = prefix). See Note 7 also.         IV       in situ/field vane shear strength, peak (p) and remoulded (r), kPa         HV       Hand vane shear strength, peak (p) and remoulded (r), kPa         PP       Pocket penetrometer test, converted to shear strength, kPa         KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presenter on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         SCR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture lndex - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)   |             | recovered by SPT open shoe are shown as type D.  |
| IV       in situ/field vane shear strength, peak (p) and remoulded (r), kPa         HV       Hand vane shear strength, peak (p) and remoulded (r), kPa         PP       Pocket penetrometer test, converted to shear strength, kPa         KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presenter on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         SCR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)         NIDD       Non-intact Drilling Induced – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depti range of non-fractured ore.)         CRF       Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR  |             | number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach the limitin   |
| HV       Hand vane shear strength, peak (p) and remoulded (r), kPa         PP       Pocket penetrometer test, converted to shear strength, kPa         KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results presenter on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         SCR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)         NIDD       Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recoverer as Non-intact due to the drilling process. (Used only where specified)         NDP       No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)  | 117         |  |
| PP       Pocket penetrometer test, converted to shear strength, kPa         KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results present<br>on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020<br>TCR         CR       Total Core Recovery, %         SCR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)         NIDD       Non-intact Drilling Induced – used to indicate where core is non-fractured. (Used only where specified as alternative<br>representation to showing a single If value for the depth range of non-fractured core.)         NDP       No Discontinuities Present – used to indicate where core is non-fractured core.)         NDP       No Discontinuities Present – used to indicate where core is non-fractured core.)         NDP       No Discontinuitites Present – used to indicate where core is  |             |  |
| KFH, KRH, KPI       Permeability tests : KFH = falling head, KRH = rising head, KPI = packer inflow (water pressure test). Results present<br>on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS       Classification of discontinuity state - as defined in BS 5930:2015+A1:2020<br>TCR         Total Core Recovery, %       SCR         SOR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)         NIDD       Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered<br>as Non-intact due to the drilling process. (Used only where specified)         NDP       No biscontinuities Present – used to indicate where core is non-fractured (Used only where specified as alternative<br>representation to showing a single If value for the depth range of non-fractured core.)         CRF       Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If<br>accordingly) where slipped/dropped core from a core run has been recovered in the  |             |  |
| on separate report sheets.         PID       VOC concentration using hand-held photo-ionisation detector, ppm         DRILLING RECORDS         Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         SCR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)         NIDD       Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recoverer as Non-intact due to the drilling process. (Used only where specified)         NDP       No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)         CRF       Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.         AZCI       Assessed Zone of Core Loss – used to indicate estimated depth  |             | •  |
| DRILLING RECORDS         Classification of discontinuity state - as defined in BS 5930:2015+A1:2020         TCR       Total Core Recovery, %         SCR       Solid Core Recovery, %         RQD       Rock Quality Designation, %         If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)         NIDD       Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)         NDP       No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)         CRF       Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.         AZCI       Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).  |             | on separate report sheets.   |
| Classification of discontinuity state - as defined in BS 5930:2015+A1:2020TCRTotal Core Recovery, %SCRSolid Core Recovery, %RQDRock Quality Designation, %IfFracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.FIFracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)NINon-intact - used to indicate where the core is fragmented (ie non-Solid Core).NANot-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)NIDDNon-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)NDPNo Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)CRFCore Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.AZCIAssessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).   |             |  |
| TCRTotal Core Recovery, %SCRSolid Core Recovery, %RQDRock Quality Designation, %IfFracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.FIFracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)NINon-intact - used to indicate where the core is fragmented (ie non-Solid Core).NANot-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)NIDDNon-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)NDPNo Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)CRFCore Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.AZCIAssessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).   |             |  |
| SCRSolid Core Recovery, %RQDRock Quality Designation, %IfFracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.FIFracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)NINon-intact - used to indicate where the core is fragmented (ie non-Solid Core).NANot-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)NIDDNon-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)NDPNo Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)CRFCore Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.AZCIAssessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).  |             |  |
| RQDRock Quality Designation, %IfFracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.FIFracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)NINon-intact - used to indicate where the core is fragmented (ie non-Solid Core).NANot-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)NIDDNon-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovere as Non-intact due to the drilling process. (Used only where specified)NDPNo Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)CRFCore Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.AZCIAssessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).  |             |  |
| If       Fracture spacing, mm - presented as minimum, mode (or 'typical' value) and maximum spacing.         FI       Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)         NIDD       Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recoverer as Non-intact due to the drilling process. (Used only where specified)         NDP       No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)         CRF       Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.         AZCI       Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).  |             |  |
| FI       Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)         NI       Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).         NA       Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)         NIDD       Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)         NDP       No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)         CRF       Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.         AZCI       Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).   |             |  |
| NI         Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).           NA         Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)           NIDD         Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)           NDP         No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)           CRF         Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.           AZCI         Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).   | lf          |  |
| <ul> <li>NA Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)</li> <li>NIDD Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)</li> <li>NDP No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)</li> <li>CRF Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.</li> <li>ASSESSEd Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR&lt;100 %).</li> </ul>  | FI          | Fracture Index - presented as number of fractures per metre. (Used as alternative to Fracture Spacing)   |
| NIDD       Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)         NDP       No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)         CRF       Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.         AZCI       Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).  | NI          | Non-intact - used to indicate where the core is fragmented (ie non-Solid Core).  |
| as Non-intact due to the drilling process. (Used only where specified)         NDP       No Discontinuities Present – used to indicate where core is non-fractured. (Used only where specified as alternative representation to showing a single If value for the depth range of non-fractured core.)         CRF       Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.         AZCI       Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).   | NA          | Not-applicable - used where a measurement is inappropriate (eg for non-rock materials, zones of no recovery)   |
| <ul> <li>representation to showing a single If value for the depth range of non-fractured core.)</li> <li>CRF</li> <li>Core Recovered in the Following run (length in m) – used to indicate length adjustment to TCR (and SCR, RQD and If accordingly) where slipped/dropped core from a core run has been recovered in the subsequent run.</li> <li>ASSESSED Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR&lt;100 %).</li> </ul>  | NIDD        | Non-intact Drilling Induced – used to indicate where rock believed to be non-fractured in the ground has been recovered as Non-intact due to the drilling process. (Used only where specified)                                       |
| AZCI Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).  | NDP         |  |
|   | CRF         |  |
|   | AZCL        | Assessed Zone of Core Loss – used to indicate estimated depth range corresponding to core loss (for TCR<100 %).<br>Assumed to be at the start of the core run where no judgement is possible. Not shown for core loss less than 5 %. |

# Key to Exploratory Hole Records



| $\nabla$                              | Groundwater e<br>Depth to groun   | entry<br>Idwater after observ   | ation period   |   |  |  |  |
|---------------------------------------|---|---|--|---|--|--|--|
| NSTALLATIONS                          |   |   | Exploratory Hole Re  | ecord in the rightmo  | st Backfill colum  | n with appropria   | te graphic.                                    |
| Standpipe/                            | , any moranaitor  |   |  | eeera in the rightine   |  |  | ie grapiner                                    |
| piezometer                            |   |   |  |   |  |  |  |
| SP                                    | Standpipe   |   | 1.1  |   | L  |  |  |
| SPIE                                  | Standpipe piez  | rometer   | Plain  | Slotted   |  | ometer   |  |
| PPIE                                  | Pneumatic piez  |   | Pipe   | Pipe  |  | Tip  |  |
| EPIE                                  |   |   | Fibe   | Fipe  |  | пр   |  |
| nclinometer or<br>Slip Indicator      | Electronic piez   | Unieter   | _  |   |  |  |  |
| CE                                    | Biaxial inclinor  | neter   |  |   |  |  |  |
| CM                                    |   | bing for use with pro   | obe  |   |  |  |  |
| SLIP                                  | Slip indicator  | ang ter dee min pro   | 40   |   |  |  |  |
| Settlement<br>Points                  |   |   | Pre  | essure Cells  |  |  |  |
| ESET                                  | Electronic settl  | ement cell/gauge  | V  | EPCE E  | Electronic embec   | lment pressure o   |  |
| ETM                                   |   | nsometer settlement   | t point  |   | Electronic push-ii   |  |  |
|                                       |   |   |  |   |  |  |  |
| INSTALLATION /<br>BACKFILL<br>LEGENDS | A legend descr<br>materials are ir  | ribing the installatior<br>ndicated below.  | n is shown in the righ   | ntmost column. Leg  | end symbols use  | d to describe the  | e backfill                                     |
|                                       | Macadam   | Concrete  | Grout  | Bentonite   | Sand   | Gravel   | Arisings                                       |
|                                       |   | °   |  |   |  |  | - J.   |
|                                       |   | ° , ° °   |  |   |  |  |  |
|                                       |   | * <u>*</u> 0 °<br>* <u>^</u> 0 <u>^</u> 0   |  |   |  |  |  |
|                                       |   |   |  |   |  | 0 0 0  |  |
| STRATUM<br>LEGENDS                    | below. For soil   | s with significant pro<br>lade Ground / Fill st   | hical representation<br>oportions of seconda<br>tratum legend does r   | ary soil types, a com   | bination of two o  | r more symbols   | is used.                                       |
|                                       | below. For soils<br>Note that the M   | s with significant pro<br>lade Ground / Fill st   | oportions of seconda   | ary soil types, a com   | bination of two o<br>ween engineerec   | r more symbols   | is used.<br>eered                              |
|                                       | below. For soils<br>Note that the M<br>anthropogenic  | s with significant pro<br>lade Ground / Fill st<br>materials.   | pportions of seconda<br>tratum legend does i   | ary soil types, a com<br>not differentiate bety                               | bination of two o<br>ween engineerec   | r more symbols<br>I and non-engine   | is used.<br>eered                              |
|                                       | below. For soils<br>Note that the M<br>anthropogenic  | s with significant pro<br>lade Ground / Fill st<br>materials.   | pportions of seconda<br>tratum legend does i   | ary soil types, a com<br>not differentiate bety                               | abination of two o<br>ween engineered<br>الا Peat<br>الأربع عالم<br>المربع عالم  | r more symbols<br>I and non-engine   | is used.<br>eered                              |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam                             | s with significant pro<br>lade Ground / Fill st<br>materials.<br>Concrete   | popritions of seconda<br>tratum legend does i<br>Topsoil   | ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi           | abination of two o<br>ween engineered<br>ال Peat<br>ال Peat<br>ال ال الم<br>ال الم<br>ال الم<br>ال الم<br>ال الم<br>ال الم<br>ال الم<br>الم<br>الم<br>الم<br>الم<br>ال الم<br>الم<br>الم<br>الم<br>الم<br>الم<br>الم<br>الم<br>الم<br>الم   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders                      | is used.<br>eered<br>ormation                  |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam                             | s with significant pro<br>lade Ground / Fill st<br>materials.<br>Concrete   | popritions of seconda<br>tratum legend does i<br>Topsoil   | ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi           | الا Peat<br>الا Peat<br>الا Peat<br>الا كالذ مالذ<br>الذ مالذ مالذ<br>الذ مالذ مالذ<br>الذ مالذ مالذ<br>الا Cobbles  | r more symbols<br>I and non-engine<br>Void or No Infe                                  | is used.<br>eered<br>ormation                  |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam                             | s with significant pro<br>lade Ground / Fill st<br>materials.<br>Concrete   | popritions of seconda<br>tratum legend does i<br>Topsoil   | ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi           | الا Peat<br>الا Peat<br>الا Peat<br>الا معاد<br>الا معاد<br>المعاد<br>الا معاد<br>المعاد<br>الا معاد<br>الا معاد<br>الا معاد<br>الا معاد<br>الا معاد<br>الا معاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>معاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>معاد<br>معاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعام الما<br>المعاد<br>المعاد<br>المعام<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعاد<br>المعام المعام<br>المعام<br>المعاد<br>المعام الممام<br>مام المعام الممام معام<br>المعام<br>الممام معام<br>المعام<br>المعام<br>الممام<br>المام<br>المعام<br>المعام<br>الممام<br>المام معام المماما<br>مما معام معام معام الممامع مع معام معام | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders                      | is used.<br>eered<br>ormation                  |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam                             | s with significant pro<br>lade Ground / Fill st<br>materials.<br>Concrete   | popritions of seconda<br>tratum legend does i<br>Topsoil   | ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi           | abination of two o<br>ween engineered<br>الا Peat<br>المالية مالية<br>من مالية مالية<br>من من من من<br>Cobbles   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders                      | is used.<br>eered<br>ormation                  |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay                     | s with significant pro<br>Made Ground / Fill st<br>materials.<br>Concrete   | popritions of secondation<br>tratum legend does not<br>Topsoil<br>Sand   | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | abination of two o<br>ween engineered<br>الا Peat<br>المالية مالية<br>من مالية مالية<br>من من من من<br>Cobbles   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders                      | is used.<br>eered<br>ormation<br>Coal          |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay                     | s with significant pro<br>lade Ground / Fill st<br>materials.<br>Concrete   | popritions of secondation<br>tratum legend does not<br>Topsoil<br>Sand   | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | abination of two o<br>ween engineered<br>الا Peat<br>المالية مالية<br>من مالية مالية<br>من من من من<br>Cobbles   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders                      | is used.<br>eered<br>ormation<br>Coal          |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay                     | s with significant pro<br>Made Ground / Fill st<br>materials.<br>Concrete<br>Silt<br>Silt<br>Siltstone  | popritions of secondation<br>tratum legend does not<br>Topsoil<br>Sand   | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | abination of two o<br>ween engineered<br>الا Peat<br>المالية مالية<br>من مالية مالية<br>من من من من<br>Cobbles   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders                      | is used.<br>eered<br>ormation<br>Coal          |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay                     | s with significant provide Ground / Fill st<br>materials.<br>Concrete   | popritions of secondation<br>tratum legend does not<br>Topsoil<br>Sand   | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | abination of two o<br>ween engineered<br>الا Peat<br>المالية مالية<br>من مالية مالية<br>من من من من<br>Cobbles   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders                      | is used.<br>eered<br>ormation<br>Coal          |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay                     | s with significant provide Ground / Fill st<br>materials.<br>Concrete   | popritions of secondation<br>tratum legend does not<br>Topsoil<br>Sand   | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | abination of two o<br>ween engineered<br>الا Peat<br>المالية مالية<br>من مالية مالية<br>من من من من<br>Cobbles   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders                      | is used.<br>eered<br>ormation<br>Coal<br>Chalk |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay<br>Clay<br>Mudstone | s with significant pro<br>Nade Ground / Fill st<br>materials.<br>Concrete<br>Silt<br>Silt<br>Siltstone<br>XXXXXX<br>XXXXX<br>Siltstone<br>XXXXXX<br>XXXXX<br>Siltstone  | popritions of secondations of secondations of secondations of secondations of secondations of the secondation of the secondatio | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | Abination of two o<br>ween engineered<br>الا Peat<br>الأ Peat<br>الأ كوما<br>الأ ما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الأ كوما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الما<br>ا   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders<br>OCOL<br>Limestone | is used.<br>eered<br>ormation<br>Coal<br>Chalk |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay<br>Clay<br>Mudstone | s with significant prov<br>Nade Ground / Fill st<br>materials.<br>Concrete<br>Silt<br>Silt<br>XXXXX<br>XXXX<br>Siltstone<br>XXXXXX<br>XXXXX<br>Siltstone<br>XXXXXX<br>XXXXX<br>Siltstone<br>XXXXXX<br>XXXXX<br>XXXXX<br>XXXXX<br>XXXXX<br>XXXXX<br>XXXX | popritions of secondations of secondations of secondations of secondations of secondations of the secondation of the secondatio | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | Abination of two o<br>ween engineered<br>الا Peat<br>الأ Peat<br>الأ كوما<br>الأ ما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الأ كوما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الما<br>ا   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders<br>OCOL<br>Limestone | is used.<br>eered<br>ormation<br>Coal<br>Chalk |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay<br>Clay<br>Mudstone | s with significant pro-<br>lade Ground / Fill st<br>materials.<br>Concrete<br>$i \\ i \\$   | popritions of secondations of secondations of secondations of secondations of secondations of the secondation of the secondatio | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | Abination of two o<br>ween engineered<br>الا Peat<br>الأ Peat<br>الأ كوما<br>الأ ما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الأ كوما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الما<br>ا   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders<br>OCOL<br>Limestone | is used.<br>eered<br>ormation<br>Coal<br>Chalk |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay<br>Clay<br>Mudstone | s with significant prov<br>Nade Ground / Fill st<br>materials.<br>Concrete<br>Silt<br>Silt<br>XXXXX<br>XXXX<br>Siltstone<br>XXXXXX<br>XXXXX<br>Siltstone<br>XXXXXX<br>XXXXX<br>Siltstone<br>XXXXXX<br>XXXXX<br>XXXXX<br>XXXXX<br>XXXXX<br>XXXXX<br>XXXX | popritions of secondations of secondations of secondations of secondations of secondations of the secondation of the secondatio | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | Abination of two o<br>ween engineered<br>الا Peat<br>الأ Peat<br>الأ كوما<br>الأ ما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الأ كوما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الما<br>ا   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders<br>OCOL<br>Limestone | is used.<br>eered<br>ormation<br>Coal<br>Chalk |
|                                       | below. For soils<br>Note that the M<br>anthropogenic<br>Macadam<br>Clay<br>Clay<br>Mudstone | s with significant pro-<br>lade Ground / Fill st<br>materials.<br>Concrete<br>$i \\ i \\$   | popritions of secondations of secondations of secondations of secondations of secondations of the secondation of the secondatio | Ary soil types, a com<br>not differentiate betw<br>Made Ground / Fi<br>Gravel | Abination of two o<br>ween engineered<br>الا Peat<br>الأ Peat<br>الأ كوما<br>الأ ما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الأ كوما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الأ كوما<br>الأ كوما<br>الأ<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الأ كوما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الألما<br>الما<br>ا   | r more symbols<br>I and non-engine<br>Void or No Infe<br>Boulders<br>OCOL<br>Limestone | is used.<br>eered<br>ormation<br>Coal<br>Chalk |

| O       Diritiant of any production of any productin any production of any production of any production of any produ   | Checked         | Dep  | oth         | Dates  |                     | Meth        | od           |                        | Equipr           | nent        | Rig Crev | w Log | ger Lo    | gged             | Но      | ole        | Cas    | ing           |                              | Depth Related Remarks   |                         |                      |              | SOCOTEC           |
|--|-----------------|------|-------------|--------|---------------------|-------------|--------------|------------------------|------------------|-------------|----------|-------|-----------|------------------|---------|------------|--------|---------------|------------------------------|---|-------------------------|----------------------|--------------|-------------------|
|  |                 |      |             |        |                     |             |              |                        |                  |             |          |       | J 27 A    | opr 22           |         |            |        | • • •         | Depth                        | Remarks   |                         |                      |              | 59.44 mOD         |
|  | CP              |      |             |        |                     |             |              | ing                    |                  |             |          |       | D 18 N    | lay 22<br>lay 22 | 20.00   | 146        | 2.80   | 153           |                              |   |                         |                      |              |                   |
|  | Approved        |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         | National Gr          | d            |                   |
|  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         |                      |              | System            |
| $ - \frac{1}{2} - \frac$ | СР              |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         |                      |              |                   |
|  | Date            | Time |             | Sample | es                  |             | Field T      | Tests                  | Samp / Te        | st Corir    | na       | TCR % | Water a   | dded             |         |            |        |               |                              | Strata Description  |                         | ۔<br>ب               | Water        |                   |
|  |                 |      | Danth       | -      |                     | Dauth       |              |                        |                  | D           | epth     | RQD   | If        |                  |         |            |        | Legend        |                              |   | Detail                  | hise                 |              | Backfill          |
| No. No. No.       No. No. No. No. No. No. No. No. No. No.  | 0               |      |             |        | Records             | Depth       | Туре         | Records                | Casing w         | ater (Dia   | imeter)  | % (m  | im) Flush | detalls          |         | (Thickness | 5)     |               | (TOPSOIL)                    |   | Detail                  | 0                    |              | Raised            |
| = 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1  |                 |      | 0.20        | D 2    |                     | 0.20        |              | n 60kPa r 12kPa        |                  |             |          |       |           |                  |         | (0.5       | 0)     |               | Soft dark bro                | own slightly sandy slightly gravelly CLAY with frequent roots (up   |                         |                      |              |                   |
| 100         100 <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>0.50</td> <td>HV</td> <td>p 05kra, 1 12kra</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.50</td> <td>+58.04</td> <td></td> <td>is angular to</td> <td>subrounded fine to coarse of flint.</td> <td></td> <td></td> <td></td> <td>0.50</td>   | -               |      |             |        |                     | 0.50        | HV           | p 05kra, 1 12kra       |                  |             |          |       |           |                  |         | 0.50       | +58.04 |               | is angular to                | subrounded fine to coarse of flint.   |                         |                      |              | 0.50              |
| No. 10         NO. 10<  | -               |      |             |        |                     | 0.60        | PID          | 0.0 ppmv (Test 2)      | -                | -           |          |       |           |                  |         |            |        |               |                              |   |                         |                      |              | 0.00              |
| 1        | -               |      | 0.90 - 1.20 | B6     |                     |             |              |                        |                  |             |          |       |           |                  |         |            | ,      |               | diameter) an                 | nd decaying plant matter. Sand is fine to medium. Gravel is   |                         |                      |              |                   |
|  | 1 -             |      | 0.50 - 1.20 |        |                     |             |              |                        |                  |             |          |       |           |                  |         | 1          |        |               |                              |   | 1                       |                      |              | 22                |
| Image: 1       Image: 1 <th< td=""><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.00 E</td><td>Dry</td><td></td><td></td><td></td><td></td><td></td><td>1.20</td><td>+58.24</td><td></td><td>Light orangis</td><td>sh brown slightly gravelly silty SAND. Sand is fine to medium.</td><td></td><td></td><td></td><td>1.20</td></th<>   | -               |      |             |        |                     |             |              |                        | 0.00 E           | Dry         |          |       |           |                  |         | 1.20       | +58.24 |               | Light orangis                | sh brown slightly gravelly silty SAND. Sand is fine to medium.  |                         |                      |              | 1.20              |
| 2       2       2       2       0  | -               |      |             |        | 100% rec, dia 110mm | 1.20        |              |                        |                  |             |          |       |           |                  |         |            |        |               | Firm to stiff o              | orangish brown mottled black silty CLAY with occasional pockets   | (                       |                      |              |                   |
| 1       1 <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<>  | -               |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         |                      |              |                   |
| 1       2       2       0  | -               |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         | (1.3       | 5)     | × <u> </u>    |                              |   |                         |                      |              | · · · · - · · · · |
| 1       10   | 2 —             |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        | ××            | <                            |   |                         |                      |              |                   |
|  | -               |      |             |        | 100% rec. dia 110mm | 2.20 - 2.65 | SPT S        |                        | 0.00 E           | Dry         |          |       |           |                  |         |            |        | <u>×_^_</u> × | <                            |   |                         |                      |              |                   |
| 1       1 <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<>  |                 |      | 5.20        |        |                     |             |              |                        |                  |             |          |       |           |                  |         | 2.55       | 1EC 00 | <u>××</u>     | <                            |   |                         |                      |              |                   |
| 3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         | 2.00       | -00.09 |               | Stiff, locally v             | very stiff light brown mottled light grey CLAY with rare rootlets.<br>AY FORMATION)   |                         |                      |              |                   |
| Image: Section 1       Image: Section 1 <th< td=""><td></td><td></td><td>2.85</td><td>D 16</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>(</td><td></td><td></td><td></td><td></td><td></td></th<>  |                 |      | 2.85        | D 16   |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               | (                            |   |                         |                      |              |                   |
| Image: Provide Sign: Provid  |                 |      | 0.00        | D. 40  |                     | 0.00 0.00   | 0.007.0      |                        |                  |             |          |       |           |                  |         | (1 2       | 0)     |               | -                            |   |                         | rangish              |              |                   |
| 1        | - 28 Apr 22     |      |             |        | 93% rec, dia 110mm  | 3.20 - 3.65 | SPIS         |                        | 0.00 L           | ory         |          |       |           |                  |         | (          | •)     | L             |                              |   | DIOWII.                 |                      |              |                   |
| - 100       - 100 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td></td<>   |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               | -                            |   |                         |                      |              |                   |
| 1        |                 |      | 3.75        | D 17   |                     |             |              |                        |                  |             |          |       |           |                  |         | 3.75       | +55.69 |               | No. 11                       |   | 4                       |                      |              |                   |
| 1       10   | -               |      |             |        |                     | 3.90 - 4.24 | SPT S        |                        | 0.00             | Dry         | ŀ        |       |           |                  |         |            |        |               |                              |   |                         | rownish              |              |                   |
|  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         | (0.7       | 5)     |               | (WEALD CL/                   | AY FORMATION)   | red.                    |                      |              |                   |
| -        |                 |      |             |        |                     |             |              | ID TH62 Er 66%         |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         |                      |              |                   |
|  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         | 1          | +54.94 |               | Extremely we                 | reak grev MUDSTONE with extremely to very closely spaced thin   | brown fine to medium    |                      |              |                   |
| 0       5.0       0.9  | -               |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  | 99% rec |            |        |               | laminae of lig               | ight grey siltstone. Fractures are 0-15 degrees closely spaced  |                         |                      |              |                   |
| 1       0  | 5 _             |      | 5.00        | D 18   |                     |             |              |                        |                  |             | ,        |       |           |                  |         |            |        |               | occasional in                | nfill of dark grey clay (up to 1mm); 80-90 degrees planar rarely  |                         |                      |              | 5.00              |
| a       3 99, 6.2       0 19       0 19       0 100 100 100 100 100 100 1000 1000 10   |                 |      | 0.00        | 210    |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              | smooth to rough clean, rarely with infill of dark bluish grey clay (up  | 5,                      |                      |              | SP                |
| a     a     b <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>540-571</td> <td>SPT C</td> <td>100 (6 19/15 55 30 for</td> <td>r 280 3</td> <td>00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>AY FORMATION)</td> <td></td> <td></td> <td></td> <td></td>   | -               |      |             |        |                     | 540-571     | SPT C        | 100 (6 19/15 55 30 for | r 280 3          | 00          |          |       |           |                  |         |            |        |               |                              | AY FORMATION)   |                         |                      |              |                   |
| •••••••••••••••••••••••••••••  |                 |      |             |        |                     |             |              | 10mm)                  |                  |             |          |       |           |                  |         |            |        |               |                              |   | 5.60-5.88 Moderately    | weak.                |              |                   |
| a = 1       5.8 - 6.12       C.13       C.13       C.13       C.14       C.15       C.15 <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ID 1H67 EF 58%</td> <td></td> <td>,</td> <td></td> <td></td> <td></td>  | -               |      |             |        |                     |             |              | ID 1H67 EF 58%         |                  |             |          |       |           |                  |         |            |        |               |                              |   | ,                       |                      |              |                   |
| f. 5.2               D.20  | 6 -             |      | 5 95 - 6 12 | C 19   |                     |             |              |                        |                  |             |          | 100 2 | 10        |                  |         | (2.9       | 5)     |               |                              |   |                         |                      |              |                   |
| r  | -               |      |             |        |                     |             |              |                        |                  | 5.40        | ) - 6.90 | 71 /  | AII/IIII3 |                  | 99% rec |            |        |               |                              |   |                         |                      |              |                   |
| 7  | -               |      |             |        |                     |             |              |                        |                  | (12         | .511111) | 55    | 5.40      | 0.90             |         |            |        |               |                              |   | 6.36-6.38 Moderately    | weak.                |              |                   |
| a =       a + b + b + b + b + b + b + b + b + b +  | -               |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   | 6.51-7.06 Moderately    | weak.                |              |                   |
| a =       a + b + b + b + b + b + b + b + b + b +  | -               |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         |                      |              |                   |
| a =       a + b + b + b + b + b + b + b + b + b +  | 7 —             |      |             |        |                     |             |              |                        |                  |             | ſ        |       |           |                  |         |            |        |               |                              |   | 7.06-7.12 Stiff to verv | stiff arev           |              |                   |
| a     a     a     b <td>-</td> <td></td> <td>to light grey clay.</td> <td></td> <td></td> <td></td>  | -               |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   | to light grey clay.     |                      |              |                   |
| a =       a + a + b + b + b + b + b + b + b + b +  | -               |      |             |        |                     |             |              |                        |                  |             |          | 07    | _         |                  |         | 7.45       | +51.99 |               | Very weak to                 | o weak arey to light grey MUDSTONE with extremely to yery   | 7.41-7.45 Very stiff gr | ey clay.<br>ey clay. |              |                   |
| a       a       a       a       a       a       b  |                 |      |             |        |                     |             |              |                        |                  |             |          | 84    |           |                  | 99% rec |            |        |               | closely space                | ced thin, locally thick laminae of light grey siltstone and dark grey   |                         |                      |              |                   |
| 8       -  |                 |      |             |        |                     |             |              |                        |                  | (10         | 01mm)    | 81    | 6.90 -    | 8.40             |         |            |        |               | mudstone. Fi<br>spaced (50/3 | -ractures are 0-5 degrees medium spaced locally very closely 300/710) planar smooth to rough with rare infill of dark grev clav | weak.                   |                      |              |                   |
| a       a       a       b       a       b  | 8 —             |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               | to clean; 80-9               | -90 degrees planar to undulating rough, rarely smooth with light  | 8.02-8.07 Extremely     | veak.                |              |                   |
| a       a       b       a       b       a       b       a       b       a       b       a       b       a       b       a       b       a       b       a       b       a       b       a       a       b       a       b       a  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         | ay.                  |              |                   |
| 9       1       8.76 - 9.08       C 21         |                 |      |             |        |                     |             |              |                        |                  |             | ŀ        |       |           |                  |         |            |        |               |                              |   |                         | ht grey              |              |                   |
| 9       6.6 - 9.08       C.7       C.7       0       0.40 - 9.00       97       Arr/mist flush:       99% rec       0       0.60 - 9.55 Moderately weak.       0.08 - 9.55 Moderately weak.       0.06 - 9.55 Moderately weak.       <   | 1               |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            | 0)     |               |                              |   | and grey clay.          |                      |              |                   |
| 9       -  |                 |      | 8.76 - 9.08 | C 21   |                     |             |              |                        |                  |             |          |       | 10        |                  |         | (2.6       | 0)     |               |                              |   | 8.70-9.08 Extremely 1   |                      |              |                   |
| Image: second  | 9 -             |      |             |        |                     |             |              |                        |                  | 8.40        | ) - 9.90 |       | Air/mis   | t flush:         | 99% rec |            |        |               |                              |   |                         | weak.                |              |                   |
| 10 10     10 <td></td> <td> </td> <td></td> <td></td> <td></td>  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         |                      |              |                   |
| 10 10     10 <td></td> <td>9.55-9.56 Very stiff gr</td> <td>ey clay.</td> <td></td> <td></td>  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   | 9.55-9.56 Very stiff gr | ey clay.             |              |                   |
| 10     - </td <td></td> <td>9.56-9.64 Extremely</td> <td></td> <td></td> <td></td>   |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   | 9.56-9.64 Extremely     |                      |              |                   |
| General Remarks       Hard Boring / Chiselling<br>Depths       Tool       Groundwater Entries<br>No. Depth       Sealed         Notes       For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>depths and reduced levels in metres. Stratum thickness given in brackets in depth column.       Project       Gatwick Northern Runway Project (NRP)<br>Project No.       Status       Scale       1:50<br>Printed       Borehole       BH102  |                 |      |             |        |                     |             |              |                        |                  |             | ŀ        |       |           |                  |         |            |        |               |                              |   |                         | weak.                |              |                   |
| Depths       Duration (mins)       Tool       No.       Depth Remarks       Sealed         Notes       Status       Status       Scale       1:50       Project No.       D2001-22         For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.       Motor D2001-22       Scale       1:50       Project No.       Borehole         Carried out for       VINCI Construction T/A Taylor Woodrow       VINCI Construction T/A Taylor Woodrow       Scale       1:50       BH102   |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              | Hole continues on next sheet  |                         |                      |              |                   |
| Notes<br>For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>depths and reduced levels in metres. Stratum thickness given in brackets in depth column.<br>Fined 22 Jul 2022 14:12:46<br>Fined 22 Jul 2022 14:12:46<br>Fined 22 Jul 2022 14:12:46<br>Fined 22 Jul 2022 14:12:46<br>Fined 22 Jul 2022 14:12:46  | General Remarks |      |             | I      | 1                   | 1           | 1            | 1                      | I                |             |          | I     |           |                  |         | I          |        |               | -                            |   |                         |                      | 1            | I                 |
| For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Finded 22 Jul 2022 14:12:46 FINAL Finded Woodrow. BH102  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               | Depths D                     | Duration (mins) Tool No. Depth  | Remarks                 |                      |              | Sealed            |
| For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Finded 22 Jul 2022 14:12:46 FINAL Finded Woodrow. BH102  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   |                         |                      |              |                   |
| For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Finded 22 Jul 2022 14:12:46 FINAL Finded Woodrow. BH102  |                 |      |             |        |                     |             |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              |   | <u> </u>                |                      |              |                   |
| For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. Project No. D2001-22 Carried out for VINCI Construction T/A Taylor Woodrow   |                 |      |             |        |                     | Pro         | oject        | Gatwick North          | ern Runway Pr    | oject (NRP) | )        |       |           |                  |         |            |        | Status        | ;                            | Scale 1:50  | Borehole                |                      |              |                   |
| Carried out for VINCI Construction T/A Taylor Woodrow  |                 |      |             |        |                     | . All       |              |                        | -                |             |          |       |           |                  |         |            |        |               | FINA                         | AL Printed 22 Jul 2022 14:12:46   |                         | E                    | 3H102        |                   |
| © Copyright SUCULEC UK Limited Sheet 1 of 3  |                 |      |             | · ·    |                     |             | rried out fo | vinci Constru          | uction T/A Taylo | r Woodrow   |          |       |           |                  |         |            |        |               |                              |   | AGS                     |                      |              |                   |
|  | L               |      |             |        |                     | I           |              |                        |                  |             |          |       |           |                  |         |            |        |               |                              | Copyright SOCOTEC OK Linilled   |                         |                      | SHEEL I UI 3 |                   |



| Checked         | Dep   |                                | Dates                                |  | Metho                          |              |               | Equipment                      | Rig Cre                  |              | gger       | Logged                           | Но      | le         | Cas    | ing       |                                 | Depth Related Remarks   |   |                  |                | SOCOTEC     |
|-----------------|-------|--------------------------------|--------------------------------------|--|--------------------------------|--------------|---------------|--------------------------------|--------------------------|--------------|------------|----------------------------------|---------|------------|--------|-----------|---------------------------------|---|---|------------------|----------------|-------------|
|                 |       | - 1.20 27 Apr<br>- 3.90 27 Apr | r 22 - 27 Apr 22<br>r 22 - 28 Apr 22 |  | Hand dug ins<br>Dynamic window |              |               | Hand tools<br>R72 Comacchio 40 | 5 HT SR/KI               | F \          | VJ<br>CD   | 27 Apr 22<br>18 May 22           |         | Dia. (mm)  |        | Dia. (mm) | Depth                           | Remarks   |   | Ground Lev       |                | 59.44 mOD   |
| CP              |       |                                | / 22 - 28 Apr 22<br>/ 22 - 03 May 22 |  | Rotary core                    |              | ัษ            | R72 Comacchio 403              |                          |              | CD         | 18 May 22<br>18 May 22           | 20.00   | 146        | 2.80   | 153       |                                 |   |   | Coordinates      |                | E 529072.20 |
| Approved        |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   |   | National Gr      | id             | N 141593.70 |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   |   |                  |                | System      |
| CP              |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   |   |                  |                |             |
| Data            | Time  |                                | Samples                              |  |                                | Field Te     | ata           | Samp / Test                    | Coring                   | TCR %        |            | Water added                      |         |            |        |           |                                 | Strata Description  |   | · .              |                |             |
| Date            | rime  |                                | Samples                              |  |                                | Field le     | 515           | Samp / Test                    | Coring<br>Depth          | SCR %<br>RQD | If         |                                  |         | Depth      | Level  | Legend    |                                 | Strata Description  |   | isel             | Water<br>Entry | Backfill    |
| 10 Casing       | Water | Depth                          | Type & No.                           | Records  | Depth                          | Туре         | Records       | Casing Water                   | (Diameter)               | % (          | (mm)       | Flush details                    |         | (Thickness | )      |           |                                 | Main  | Detail  | ວ ວິ             | ,              |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          | -            |            |                                  |         | 10.13      | +49.31 |           |                                 | b weak grey to light grey MUDSTONE with extremely to very<br>ed thin, locally thick laminae of light grey siltstone and dark grey     | 9.90-9.98 30 degree f<br>planar smooth with lig                   |                  |                |             |
|                 |       | 10.40                          | D 22                                 |  |                                |              |               |                                |                          |              | 40         |                                  |         |            |        |           | mudstone. Fi                    | ractures are 0-5 degrees medium spaced locally very closely   | infill (up to 1mm)  |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | 0.00 44.40               |              | 120        |                                  | 00%     | (0.87      | 7)     |           |                                 | 300/710) planar smooth to rough with rare infill of dark grey clay<br>90 degrees planar to undulating rough, rarely smooth with light | 9.98-10.03 Very stiff of<br>clay.                                 | lark grey        |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | 9.90 - 11.40<br>(101mm)  | 95<br>71     |            | Air/mist flush:<br>9.90 - 11.40  | 99% rec |            |        |           |                                 | (up to 0.5mm) rarely clean.<br>AY FORMATION)  |   |                  |                |             |
| 11              |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         | 11.00      | +48.44 |           | Moderately w                    | weak to medium strong brownish grey to grey locally reddish   |   |                  |                |             |
| -               |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 | STONE. Fractures are 0-10 degrees planar smooth clean with<br>ey silt infill (up to 0.5mm); 80-90 degrees planar to undulating        | 14.00 44.04 Estreme   |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           | smooth to ro                    | ugh with light grey silt infill (up to 0.5mm).<br>AY FORMATION)   | 11.26-11.34 Extremel<br>11.40-11.48 Stiff to ve                   |                  |                |             |
| -               |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 | derately weak locally medium strong dark grey to grey   | <ul> <li>dark grey clay.</li> <li>11.48-11.83 moderate</li> </ul> | -                |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 | E with occasional lenses (up to 90x90x5mm) of light grey siltstone<br>sely to closely spaced thin laminae of light grey siltstone.    | 11.83-11.84 Stiff dark  |                  |                |             |
| 12 -            |       | 11.95                          | D 23                                 |  |                                |              |               |                                |                          | 100          |            |                                  |         |            |        |           | Fractures are                   | e 0-10 degrees closely to medium spaced locally very closely  | 11.85-11.93 70-80 de  | gree             |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | 11.40 - 12.90            | 87           |            | Air/mist flush:                  | 99% rec |            |        |           | spaced (20/1<br>infill (up to 0 | 190/540) planar smooth to rough clean with rare dark grey clay<br>.5mm); 40-60 degrees planar smooth rarely rough clean; 80-090       | fracture undulating sn<br>clean.                                  | nooth            |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | (101mm)                  | 73           |            | 11.40 - 12.90                    |         |            |        |           | degrees wide                    | ely spaced (16/630/1300) planar to undulating smooth to rough   | 12.06-12.08 Stiff dark  | • • •            |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 | ey clay and light grey silt infill (up to 1mm).<br>AY FORMATION)  | 12.50-12.90 80 degre<br>undulating rough and                      |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | polished. with dark gr  | ey clay          |                |             |
| 13 —            |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | and light grey silt infill<br>1mm).                               | (up to           |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              | 20<br>130  |                                  |         | (4.4)      | ))     |           |                                 |   | 12.54-12.57 Extreme   |                  |                |             |
| -               |       |                                |                                      |  |                                |              |               |                                |                          |              | 540        |                                  |         | ,          | ,      |           |                                 |   | spaced thick laminae<br>greyish brown silt and                    |                  |                |             |
|                 |       | 13.60                          | D 24                                 |  |                                |              |               |                                | 12.90 - 14.40            | 100<br>85    |            | Air/mist flush:                  | 99% rec |            |        |           |                                 |   | clay.<br>12.57-12.59 Stiff grey                                   |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | (101mm)                  | 72           |            | 12.90 - 14.40                    | 33% TeC |            |        |           |                                 |   | 12.69-12.79 70 degre  | e fracture       |                |             |
| 14 —            |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | undulating smooth cle<br>12.83-12.92 40 degre                     |                  |                |             |
| -               |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | planar rough with dar   |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | infill (up to 2mm).<br>12.90-12.98 Stiff to ve                    | ery stiff        |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | dark grey clay.   | •                |                |             |
|                 |       | 14.70                          | D 25                                 |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | 13.21-13.51 Moderate<br>medium strong dark b                      |                  |                |             |
| 15 —            |       |                                |                                      |  |                                |              |               |                                |                          | 100          |            |                                  |         |            |        |           |                                 |   | grey mudstone.<br>13.42-13.44 Dark bro                            |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | 14.40 - 15.90            | 91           |            | Air/mist flush:                  | 99% rec |            |        |           |                                 |   | clay angular to suban   | gular fine       |                |             |
| -               |       |                                |                                      |  |                                |              |               |                                | (101mm)                  | 83           |            | 14.40 - 15.90                    |         | 15.40      | +44.04 |           |                                 |   | to coarse gravel of m<br>13.45-13.49 20 degre                     |                  |                |             |
| -               |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           | MUDSTONE                        | weak to medium strong grey to dark grey locally brownish grey<br>E with occasional partings (up to 60x2mm) and rare lenses (up to     | planar smooth clean.  |                  |                |             |
| -               |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 | ) of light grey siltstone. Fractures are 0-10 degrees medium  | 13.75-14.13 Medium<br>to light brownish grey                      |                  |                |             |
| 16 —            |       |                                |                                      |  |                                |              |               |                                |                          | $\vdash$     |            |                                  |         |            |        |           | with rare ligh                  | lly widely spaced (10/450/1270) planar smooth rarely rough clear<br>nt grey silt infill (up to 0.5mm).                                | with frequent partings  | s (up to         |                |             |
|                 |       | 15.95 - 16.29                  | C 26                                 |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           | (WEALD CL/                      | AY FORMATION)   | 40x2mm) and occasion<br>laminae of light grey s                   |                  |                |             |
|                 |       | 40.45                          |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | 14.46-14.53 Medium<br>14.87-14.91 30 degre                        | strong           |                |             |
|                 |       | 16.45                          | D 27                                 |  |                                |              |               |                                | 15.00 47.40              | 100          |            | Air/mint fl.                     | 00% -   |            |        |           |                                 |   | planar smooth clean.  |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | 15.90 - 17.40<br>(101mm) | 97<br>97     |            | Air/mist flush:<br>15.90 - 17.40 | 99% rec |            |        |           |                                 |   | 15.10-15.24 DD recov<br>angular fine to coarse                    |                  |                |             |
| 17 —            |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | mudstone.   | •                |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | 15.24-15.27 Very stiff<br>brownish grey clay.                     |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | 15.34-15.37 Very stiff  | dark             |                |             |
|                 |       | 17.50                          | D 28                                 |  |                                |              |               |                                |                          |              | 10         |                                  |         |            |        |           |                                 |   | brownish grey clay.<br>15.60-15.63 Extreme                        |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              | 295<br>800 |                                  |         |            |        |           |                                 |   | spaced thin laminae of siltstone and dark gree                    |                  |                |             |
| 18 —            |       |                                |                                      |  |                                |              |               |                                |                          | 100          |            |                                  |         | (5.00      | 0)     |           |                                 |   | mudstone.   | -                |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | 17.40 - 18.90            | 94           |            | Air/mist flush:                  | 99% rec |            |        |           |                                 |   | 15.72-15.76 Very wea<br>15.79-15.87 Very stiff                    | ak.<br>dark grev |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | (101mm)                  | 91           |            | 17.40 - 18.90                    |         |            |        |           |                                 |   | clav.   |                  |                |             |
|                 |       | 40.50                          |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | 15.87-15.90 Very wea<br>15.90-15.95 Extreme                       | ly weak.         |                |             |
|                 |       | 18.50 - 18.86                  | C 29                                 |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | 16.66-16.70 Very stiff<br>brownish grey clay.                     | dark             |                |             |
| 19 —            |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | 16.90-16.99 30 degre  |                  |                |             |
|                 |       | 19.04 - 19.36                  | C 30                                 |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   | undulating smooth cle<br>17.04-17.12 30 degre                     | ean.             |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          | 90<br>73     |            |                                  |         |            |        |           |                                 |   | planar smooth clean.  |                  |                |             |
|                 |       | 19.51                          | D 31                                 |  |                                |              |               |                                | 18.90 - 20.40            | 73<br>69     |            | Air/mict fluck                   | 00%     |            |        |           |                                 |   | 18.05-18.13 Extreme<br>18.13-18.22 Stiff to ve                    |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                | 18.90 - 20.40<br>(101mm) |              |            | Air/mist flush:<br>18.90 - 20.40 | 99% rec |            |        |           |                                 |   | grev silty clay.  |                  |                |             |
| 20 —            |       |                                |                                      |  |                                |              |               |                                | . ,                      |              |            |                                  |         |            |        |           |                                 |   | 18.84-18.90 Very wea  | ak.              |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 | Hole continues on next sheet  |   |                  |                |             |
| General Remarks |       |                                | <u>   </u>                           |  | 1                              |              |               | 1                              |                          |              |            |                                  |         |            |        | Hard E    | l<br>Boring / Chisell           | lling Groundwater   | Entries   |                  | 1              | I           |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           | epths D                         | Ouration (mins) Tool No. Depth  | Remarks   |                  |                | Sealed      |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   |   |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   |   |                  |                |             |
| <b>.</b>        |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 | I   | I_  |                  |                |             |
| Notes           |       | and all the state              |                                      |  | Pro                            | ject         | Gatwick North | nern Runway Project (          | NRP)                     |              |            |                                  |         |            |        | Status    |                                 | Scale 1:50  | Borehole  |                  |                |             |
|                 |       |                                |                                      | oloratory Hole Records<br>n in brackets in depth | s. All                         | ject No.     | D2001-22      |                                |                          |              |            |                                  |         |            |        |           | FINA                            | AL Printed 22 Jul 2022 14:12:46   |   | F                | 3H102          |             |
|                 |       |                                | 5 -                                  | 1  |                                | ried out for | VINCI Constru | uction T/A Taylor Woo          | drow                     |              |            |                                  |         |            |        |           |                                 |   | AGS   |                  |                |             |
|                 |       |                                |                                      |  |                                |              |               | -                              |                          |              |            |                                  |         |            |        |           |                                 | © Copyright SOCOTEC UK Limited  |   |                  | Sheet 2 of 3   |             |
|                 |       |                                |                                      |  |                                |              |               |                                |                          |              |            |                                  |         |            |        |           |                                 |   |   |                  |                |             |



| Checked            |                 | Depth      |               | ates                       |               |                 | Metho        |                           |                           | Equipment                     | Rig Ci     | rew                   | Logger   | Logged                 |                | ole              | Cas           |                  |                        | 1   | Depth Related Rema                                 | rks                      |  |                           |                |        | SOCOTEC                |
|--------------------|-----------------|------------|---------------|----------------------------|---------------|-----------------|--------------|---------------------------|---------------------------|-------------------------------|------------|-----------------------|----------|------------------------|----------------|------------------|---------------|------------------|------------------------|---|--|--------------------------|--|---------------------------|----------------|--------|------------------------|
| СР                 | 1.20            | 0 - 3.90   | 27 Apr 22     | - 27 Apr 22<br>- 28 Apr 22 |               | Dy              | Hand dug ins | less sampli               | ng                        | Hand tools<br>R72 Comacchio 4 | 05 HT SR/k | KF                    | VJ<br>CD | 27 Apr 22<br>18 May 22 | Depth<br>20.00 | Dia. (mm)<br>146 | Depth<br>2.80 | Dia. (mm)<br>153 | Depth                  | Remarks   |  |                          |  | Ground Lev<br>Coordinates |                |        | 59.44 mOD<br>529072.20 |
| Approved           | 3.90            | ) - 20.00  | 03 May 22     | 2 - 03 May 22              | 2             |                 | Rotary core  | e arilling                |                           | R72 Comacchio 4               | 05 HT DP/A | AB                    | CD       | 18 May 22              |                |                  |               |                  |                        |   |  |                          |  | National Gri              |                |        | N 141593.70            |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                | System |                        |
| CP                 |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| Date               | Time            |            |               | Samples                    |               |                 |              | Field To                  |                           | Samp / Test                   | Depth      | TCR %<br>SCR %<br>RQD | If       | Water added            |                | Depth            | Level         | Legend           |                        |   | Strata Desci                                       | ription                  |  | lisel.                    | Water<br>Entry | Bac    | ckfill                 |
| 20 Casing          | Wate            | er De      | epth T        | ype & No.                  | Reco          | rds             | Depth        | Туре                      | Records                   | Casing Water                  | (Diameter) | %                     | (mm)     | Flush details          |                | (Thickness       | 5)            |                  | Moderately w           | eak to medium strong g                                  | Main<br>rey to dark grey locally                   | brownish grey 1          | Detail<br>8.86-18.90 20 degree                                       | e fracture                |                |        |                        |
| - 03 May 2<br>2.80 | 22 1715<br>3.00 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                | 20.40            | +39.04        |                  | MUDSTONE<br>50x50x5mm) | with occasional partings<br>of light grey siltstone. Fi | s (up to 60x2mm) and ra<br>ractures are 0-10 degre | are lenses (up to p      | olanar smooth with dat<br>clay infill.                               |                           |                | 20.40  |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        | •              | 20.40            | +39.04        |                  | with rare light        | y widely spaced (10/450<br>grey silt infill (up to 0.5r |  | arely rough clean 1<br>1 | 8.99-19.04 Very stiff (<br>9.49-19.51 Very stiff (                   | grey clay.<br>grey clay.  |                | 20.40  |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  | (WEALD CLA             | Y FORMATION)<br>END OF EXPL                             | LORATORY HOLE                                      | / 1<br>/ b               | 9.64-19.67 Firm to sc<br>brown silty clay.                           | oft greyish               |                |        |                        |
| 21 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  | b                        | 9.67-19.92 Weak gre<br>brown silty mudstone v                        | with                      |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  | s                        | occasional lenses of lig<br>siltstone (up to 20x20x                  | (2mm).                    |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  | 1<br>p                   | 9.85-19.92 25 degree<br>blanar smooth clean.<br>9.95-20.05 Extremely | e fracture                |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  | v                        | veak dark grev mudst   | one.                      |                |        |                        |
| 22 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  | 2                        | 20.05-20.18 Very stiff (<br>20.18-20.25 Weak bed                     | clay.<br>coming           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  | n<br>  2                 | noderately strong.<br>20.25-20.40 AZCL                               |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| 23 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| 24 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| 25 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| 26 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| 27 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| -                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| 28 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| 29 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| 30 —               |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| General Remark     | s               |            |               |                            |               |                 |              |                           |                           | I                             | I          | 1                     |          |                        |                | I                |               |                  | oring / Chiselli       |   | <b>-</b> .   | Groundwater Entrie       |  |                           | I              |        |                        |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  | epths Du               | uration (mins)  | Tool   | No. Depth Rem            | narks  |                           |                |        | Sealed                 |
|                    |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               |                  |                        |   |  |                          |  |                           |                |        |                        |
| Notes              |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               | Status           |                        | I   |  | 1                        | Borehole   |                           |                |        |                        |
| For explanation o  | of symbols      | is and abl | breviations s | ee Key to E                | xploratory Ho | ble Records. A  | -            | oject<br>Diect No.        | Gatwick North<br>D2001-22 | nern Runway Project           | (NRP)      |                       |          |                        |                |                  |               |                  | FINA                   |   | Scale 1:50<br>Printed 22 Jul 2022                  | 14·12·46                 |  | -                         | 3H102          |        |                        |
| depths and reduc   | Jeu ieveis      | s in metre | s. Stratum ti | IIICKIIESS GIV             | en in Dräcket | is in depth col |              | oject No.<br>rried out fo |                           | uction T/A Taylor Wo          | odrow      |                       |          |                        |                |                  |               |                  | r-IINA                 | `L  |  | Δ                        | GS   |                           |                |        |                        |
| 1                  |                 |            |               |                            |               |                 |              |                           |                           |                               |            |                       |          |                        |                |                  |               | 1                |                        |   | © Copyright SOCOTE                                 |                          |  | :                         | Sheet 3 of 3   |        |                        |



| Checked  | 0.00          |  | Dates<br>ar 22 - 07 Mar 2            |  | Meth<br>Hand dug ins      | pection pit.              |   | Equipmer<br>Hand tool     | s BB/               | BR              | MB 0            | Logged<br>07 Mar 22      |                       | Dia. (mm)             |                       | Dia. (mm)         | Depth   | Depth Related Remarks<br>Remarks  |   | Ground Level                 | 63.86 mOD                  |
|--|---------------|--|--------------------------------------|--|---------------------------|---------------------------|---|---------------------------|---------------------|-----------------|-----------------|--------------------------|-----------------------|-----------------------|-----------------------|-------------------|---|---|---|------------------------------|----------------------------|
| CP   |               |  | ar 22 - 09 Mar 2<br>ar 22 - 11 Mar 2 |  | Cable percuss<br>Rotary d |                           |   | Dando 300<br>R67 Comacchi |                     |                 |                 | 08 Mar 22<br>12 Apr 22   | 2.00<br>8.45<br>25.25 | 250<br>200<br>150     | 2.00<br>8.00<br>25.25 | 250<br>200<br>150 |   |   |   | Coordinates<br>National Grid | E 529155.43<br>N 141631.50 |
| Approved<br>CP   |               |  |                                      |  |                           |                           |   |                           |                     |                 |                 |                          |                       |                       |                       |                   |   |   |   |                              | System                     |
| Date   | Time          |  | Sample                               | es   |                           | Field 1                   | Tests   | Samp / Test               | Coring              | TCR %<br>SCR %  |                 | er added                 |                       | Depth                 | Level                 | Legend            |   | Strata Description  |   | <br>ja Water                 | Backfill                   |
| 0 - 07 Mar 2   | Water 2030    | <b>Depth</b><br>0.00 - 0.40                | Type & No.<br>B 1                    | Records  | Depth                     | Туре                      | Records   | Casing Wate               | Depth<br>(Diameter) | RQD             | lf<br>(mm) Flus | sh details               |                       | (Thickness            |                       |                   | (MADE GRO   | Main<br>DUND)   | Detail  | 양편 Entry<br>C                | Flush cover                |
|  | Dry           | 0.20<br>0.30<br>0.50 - 1.60<br>0.50 - 0.80 | D 2<br>ES 3<br>AMAL 61<br>B 4        | Combined samples.<br>B4 and B8.                      | 0.30                      | PID                       | 0.0 ppmv (Test 1)   |                           |                     |                 |                 |                          |                       | (0.40<br>0.40         | ))<br>+63.46          |                   | Grass over so<br>rootlets and r<br>subangular to<br>(MADE GRO | soft to firm brown slightly sandy gravelly CLAY with frequent<br>roots (up to 6mm diameter). Sand is medium to coarse. Grav<br>o subrounded fine to coarse of flint, clinker and sandstone. |   |                              | 0.45                       |
|  |               | 0.90<br>1.00<br>1.20                       | D 5<br>ES 6<br>D 7                   |  | 1.00<br>1.20 - 1.65       | PID<br>SPT S              | 0.0 ppmv (Test 2)<br>N=22 (2,3/3,5,7,7)                                 | 1.20 Dry                  |                     |                 |                 |                          |                       | (1.60                 |                       |                   |   | er). Sand is fine to coarse. Gravel is subangular to rounded of   |   |                              | 1.00                       |
|  | 2 0400        | 1.40 - 1.60<br>1.60                        | B 8<br>D 9                           |  | 1.20 - 1.05               | 5515                      | ID TH50 Er 65%  | 1.20 Diy                  |                     |                 |                 |                          |                       | (1.00                 | ,)                    |                   |   |   |   |                              |                            |
| 2 - 08 Mar 2<br>- 08 Mar 2<br>- 2.00<br>- 08 Mar 2<br>- 2.00 | Dry           | 2.00 - 2.45<br>2.00 - 2.20<br>2.00         | UT 12<br>B 10<br>ES 11               | 52 blows 100% rec                                    | 2.00<br>2.00              | PID<br>HV                 | 0.0 ppmv (Test 3)<br>p 9kPa, r 6kPa                                     | 2.00 Damp                 |                     |                 |                 |                          |                       | 2.00<br>(0.20<br>2.20 | +61.86<br>)) +61.66   |                   |   | slightly gravelly clayey fine to coarse SAND. Gravel is   |   |                              |                            |
|  |               | 2.20<br>2.50 - 3.00                        | D 13<br>B 14                         |  | 2.45                      | HV                        | p 15kPa, r 11kPa  |                           |                     |                 |                 |                          |                       | (0.80                 | ))                    |                   | (MADE GRO<br>Firm light yell<br>Sand is fine to               | llow slightly gravelly slightly sandy CLAY with low cobble con<br>to coarse. Gravel is subangular fine to coarse of flint and clin  | tent.<br>ker.   |                              |                            |
| 3 —  |               | 3.00<br>3.00                               | D 16<br>ES 15                        | -  | 3.00 - 3.45<br>3.00       | SPT S<br>PID              | N=17 (2,2/4,4,4,5)<br>ID TH52 Er 65%<br>0.0 ppmv (Test 4)               | 3.00 Damp                 | ,                   |                 |                 |                          |                       | 3.00                  | +60.86                |                   | grained sand<br>(Possible MA<br>Firm yellowis                 | ADE GROUND)<br>sh brown slightly sandy slightly gravelly CLAY with occasiona  |   |                              |                            |
|  |               | 3.50 - 5.00<br>3.50 - 4.00                 | AMAL 62<br>B 17                      | Combined samples.<br>B17 and B19.                    |                           |                           |   |                           |                     |                 |                 |                          |                       |                       |                       |                   | pockets (10x<br>Gravel is sub                                 | (15x10mm) of fine to medium black sand. Sand is fine to med<br>bangular to subrounded fine to medium of flint.  | ium.  |                              |                            |
| 4 —  |               | 4.00 - 4.45                                | UT 18                                | 19 blows 67% rec                                     | 4.00                      | HV                        | p 81kPa, r 44kPa  | 4.00 Damp                 | ,                   |                 |                 |                          |                       | (2.50                 | ))                    |                   |   |   |   |                              |                            |
|  |               | 4.50 - 5.00<br>4.50                        | B 19<br>ES 20                        | -  | 4.45<br>4.50              | HV<br>PID                 | p 74kPa, r 40kPa<br>0.2 ppmv (Test 5)                                   |                           |                     |                 |                 |                          |                       |                       |                       |                   |   |   |   |                              |                            |
| 5 —  |               | 5.00                                       | D 21                                 | -  | 5.00 - 5.45               | SPT S                     | N=19 (2,2/3,4,6,6)<br>ID TH52 Er 65%                                    | 3.00 Dry                  |                     |                 |                 |                          |                       |                       |                       |                   |   |   |   |                              |                            |
|  |               | 5.50 - 6.00<br>5.50                        | B 22<br>ES 23                        |  | 5.50                      | PID                       | 0.1 ppmv (Test 6)   |                           |                     |                 |                 |                          |                       | 5.50                  | +58.36                |                   | 30x40x20mm  | own slightly gravelly SILT with occasional pockets (up to<br>n) of black amorphous peat. Sand is fine to coarse. Gravel is<br>ubangular fine to coarse of flint.                            |   |                              |                            |
| 6  |               | 6.00 - 6.45                                | UT 24                                | 42 blows 100% rec                                    | 6.00                      | HV                        | p 81kPa, r 27kPa  | 6.00 Dry                  |                     |                 |                 |                          |                       | (1.00                 | ))                    | (                 | (ALLUVIUM)  |   |   |                              |                            |
|  |               | 6.50 - 6.90<br>6.50                        | B 25<br>ES 26                        | -  | 6.45<br>6.50              | HV<br>PID                 | p 74kPa, r 20kPa<br>0.1 ppmv (Test 7)                                   |                           |                     |                 |                 |                          |                       | 6.50                  | +57.36                | (                 | Very stiff yello<br>(WEALD CLA                                | owish brown mottled grey slightly sandy CLAY. Sand is fine.<br>AY FORMATION)  |   |                              |                            |
| 7  |               | 6.90<br>7.00<br>7.00 - 7.50<br>7.00        | D 27<br>D 28<br>B 29<br>ES 30        |  | 7.00 - 7.45<br>7.00       | SPT S<br>PID              | N=43<br>(7,9/10,10,11,12)<br>ID TH52 Er 65%<br>0.0 ppmv (Test 8)        | 7.00 Dry                  |                     |                 |                 |                          |                       |                       |                       | <br>              | -   |   |   |                              |                            |
|  |               | 7.50<br>7.50 - 8.00                        | D 31<br>B 32                         | -  |                           |                           | oto ppinv (rest o)  |                           |                     |                 |                 |                          |                       | (1.95                 | 5)                    | <br>              | -<br>-<br>-   |   |   |                              | SP                         |
| 8  | 2 0300<br>Dry | 8.00<br>8.00                               | D 34<br>ES 33                        |  | 8.00 - 8.45<br>8.00       | SPT S<br>PID              | 50 (5,9/11,11,13,15 for<br>70mm)<br>ID TH52 Er 65%<br>0.0 ppmv (Test 9) | 8.00 Dry                  |                     |                 |                 |                          |                       |                       |                       |                   |   |   |   |                              | 8.00                       |
| 09 Mar 2<br>8.00   |               | 8.60                                       | D 35                                 |  |                           |                           | 0.0 Phile (1001.0)  |                           |                     |                 | NA<br>NA<br>NA  |                          |                       | 8.45 (0.68            | +55.41                |                   | fine to mediur  | ally mottled orange slightly gravelly CLAY. Gravel is subangu<br>im of extremely weak grey mudstone.<br>AY FORMATION)   | lar,  |                              |                            |
| 9  |               | 8.80 - 9.10<br>9.40                        | C 36                                 |  |                           |                           |   |                           | 8.45 - 9.75         | 100<br>35<br>35 | Wa              | ater flush:<br>45 - 9.75 | 100%<br>rec           | 9.13                  | +54.73                |                   | laminae of ve   | cally extremely weak grey silty MUDSTONE with rare thin<br>ery stiff grey clay.   | 9.10-9.60 Reddish bro   |                              |                            |
|  |               | J.4U                                       |                                      |  | 9.75 - 10.04              | SPT C                     | 100 (10,15 for<br>55mm/36,49,15 for                                     | 9.75 2.80                 |                     |                 |                 |                          |                       |                       |                       |                   | (WEALD CLA  | AY FORMATION)   | 9.45-9.60 Medium stra<br>grained sandstone.<br>9.54-9.60 90 degree f<br>planar rough tight with | racture                      |                            |
| 10 —   |               |  |                                      |  |                           |                           | 10mm)<br>ID TH72 Er 64%   |                           |                     |                 |                 |                          | 1                     |                       |                       |                   |   | Hole continues on next sheet  | infill.   |                              |                            |
| General Remark   | (S            |  |                                      |  |                           |                           |   |                           |                     |                 |                 |                          |                       |                       |                       |                   | Boring / Chiselli<br>Pepths Du                                | •   | tter Entries<br>pth Remarks   |                              | Sealed                     |
| Notes  |               |  |                                      |  | Pro                       | oject                     | Gatwick Northe  | rn Runway Proje           | ct (NRP)            |                 |                 |                          |                       |                       |                       | Status            |   | Scale 1:50  | Borehole  |                              |                            |
|  |               |  |                                      | Exploratory Hole Records<br>ven in brackets in depth | s. All<br>column. Pro     | oject No.<br>rried out fo | D2001-22  | ction T/A Taylor W        |                     |                 |                 |                          |                       |                       |                       |                   | FINA  |   | AGS   | <b>BH103</b><br>Sheet 1 of 3 |                            |
|  |               |  |                                      |  |                           |                           |   |                           |                     |                 |                 |                          |                       |                       |                       |                   |   |   |   |                              |                            |



| C      | hecked            |                | pth        | Dates                                  |                          | Meth                         |                           |                                       | Equipment  |                     |                | ogger      | Logged                       |               | ole              | Ca            | sing             |                                 |  | Depth Related Rema   | arks             |  |                            |              | SOCOTEC                    |
|--------|-------------------|----------------|------------|--|--------------------------|------------------------------|---------------------------|---------------------------------------|--|---------------------|----------------|------------|------------------------------|---------------|------------------|---------------|------------------|---------------------------------|--|--|------------------|--|----------------------------|--------------|----------------------------|
|        |                   |                |            | 7 Mar 22 - 07 Mar<br>7 Mar 22 - 09 Mar |                          | Hand dug ins<br>Cable percus |                           |                                       | Hand tools<br>Dando 3000   |                     |                | MB<br>MB   | 07 Mar 22<br>08 Mar 22       | Depth<br>2.00 | Dia. (mm)<br>250 | Depth<br>2.00 | Dia. (mm)<br>250 | Depth                           | Remarks  |  |                  |  | Ground Lev                 |              | 63.86 mOD                  |
|        | CP                |                |            | 9 Mar 22 - 11 Mar                      |                          | Rotary o                     |                           | ~                                     | R67 Comacchio  |                     |                | NH         | 12 Apr 22                    | 8.45          | 200              | 8.00          | 200              |                                 |  |  |                  |  | Coordinates<br>National Gr |              | E 529155.43<br>N 141631.50 |
| A      | proved            |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              | 25.25         | 150              | 25.25         | 150              |                                 |  |  |                  |  | National Gr                | id           | N 141631.50<br>System      |
|        | CP                |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              | System                     |
|        |                   |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
|        | Date              | Time           |            | Sam                                    | ples                     |                              | Field                     | Tests                                 | Samp / Test  | Coring              | TCR %<br>SCR % | IF V       | Water added                  |               | Depth            | Level         | Legend           |                                 |  | Strata Desc  | ription          |  | lei.                       | Water        | Backfill                   |
| 10     | Casing            | Water          | Dept       | n Type & No                            | . Records                | Depth                        | Туре                      | Records                               | Casing Water   | Depth<br>(Diameter) | RQD<br>% (     |            | Flush details                |               | (Thickness       | ;)            |                  |                                 |  | Main   |                  | Detail   | chis                       | Entry        |                            |
| 10 -   | -                 |                | 9.96 - 10  | 0.27 C 38                              | -                        |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  | Very weak lo                    | cally extremely wea<br>ery stiff grey clay.    | ak grey silty MUDSTONE wit   | th rare thin     |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               | (2.2             | 0)            |                  | (WEALD CL/                      | AY FORMATION)                                  |  |                  |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  | 9.75 - 11.25        | 100<br>100     | NDP        |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
|        | -                 |                | 10.80      | D 39                                   | _                        |                              |                           |                                       |  |                     |                | NDP<br>NDP |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
| 11 -   | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  | 10.98-11.14 90 degree                                |                            |              |                            |
|        | -                 |                |            |  |                          | 11.25 - 11.45                | SPT C                     | 100 (17,8 for                         | 11.25 1.90   |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  | planar smooth very tig                               | ht clean.                  |              |                            |
|        | -                 |                |            |  |                          |                              |                           | 5mm/53,47 for 45mm)<br>ID TH72 Er 64% |  |                     |                |            |                              |               | 11.33            | +52.5         | 3                | Very weak gr                    | rey to dark grey loca                          | ally indistinctly laminated MU<br>1x40x30mm) of light grey si      | JDSTONE with     |  |                            |              |                            |
|        | _                 |                |            |  |                          |                              |                           | ID 11/2 EI 04%                        |  |                     |                |            |                              |               |                  |               |                  | 0-10 degrees                    | s medium spaced (2                             | 230/450/520) planar smooth   |                  | 11.54-11.73 Recovere stiff grey clay.                | d as very                  |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     | 100            |            |                              |               |                  |               |                  | trace silt infill<br>(WEALD CL/ | I.<br>AY FORMATION)                            |  |                  |  |                            |              |                            |
| 12 -   | -                 |                | 12.02 - 1  | 2.28 C 40                              |                          |                              |                           |                                       |  | 11.25 - 12.75       | 87<br>87       |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
|        | -                 |                | 12.02      | 2.20 0 40                              |                          |                              |                           |                                       |  |                     |                | 230        |                              |               |                  | -             |                  |                                 |  |  |                  |  |                            |              |                            |
|        | ]<br>10 Mar 2     | 2 0413         | 12.60      | D 41                                   |                          |                              |                           |                                       |  |                     |                | 430<br>620 |                              |               | (2.1             | 0)            |                  |                                 |  |  |                  |  |                            |              |                            |
|        | 12.75             | 2.36           | 12.00      |  |                          |                              |                           |                                       |  |                     | $\vdash$       |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
| 13 -   | 10 Mar 2<br>12.75 | 2 2000<br>2.36 |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
|        | -                 |                | 13.20      | D 42                                   |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  | 10.75 11.05         | 100            |            |                              |               | 13.48            | +50.3         |                  |                                 |  |  |                  |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  | 12.75 - 14.25       | 100<br>100     |            |                              |               | 13.40            | +00.3         |                  | with occasion                   | nal pockets (1x40x4                            | istinctly locally thinly laminat<br>l0mm) of light grey silt. Frac | tures are 0-10   |  |                            |              |                            |
|        | _                 |                | 13.90      | D 43                                   |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  | degrees med<br>trace silt fill. | dium spaced (180/5                             | 30/800) planar smooth close  | ed locally with  |  |                            |              |                            |
| 14 -   | -                 |                | 10.00      |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 | AY FORMATION)                                  |  |                  |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                | 180<br>530 |                              |               | (2.1             | 1)            |                  |                                 |  |  |                  |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                | 800        |                              |               | (2.1             | .,            |                  |                                 |  |  |                  |  |                            |              |                            |
| 45     | -                 |                | 14.80      | D 44                                   |                          |                              |                           |                                       |  | 14.25 - 15.75       | 100<br>100     |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
| 15 -   | _                 |                |            |  |                          |                              |                           |                                       |  | 14.25 - 15.75       | 100            |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
|        | -                 |                | 15.09 - 1  | 5.40 C 45                              |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  | 15.41-15.42 15 degree                                | fracture                   |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               | 15.59            | +48.2         | 7                | Extromoly w                     |  | ak dark grey thinly laminated                                      |                  | planar smooth very tig                               | ht with                    |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     | $\vdash$       |            |                              |               |                  |               |                  | (WEALD CL/                      | AY FORMATION)                                  | ak dark grey triiniy laminated                                     |                  | (<1mm) clay infill.<br>15.59-15.94 Moderate          |                            |              |                            |
| 16 -   | -                 |                | 15.07 1    | 6.22 C 46                              |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  | brownish grey mudsto<br>15.75-15.94 90 degree        | ne.<br>e fracture          |              |                            |
|        | _                 |                | 15.97 - 1  | 0.22 0.40                              |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  | planar rough partly op<br>16.30-16.32 20 degree      | en clean.                  |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  | 15.75 - 17.25       | 100<br>100     | 40         |                              |               | (10              | 2)            |                  |                                 |  |  |                  | planar smooth very tig                               | ht >1mm                    |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                | 710<br>810 |                              |               | (1.9             | 2)            |                  |                                 |  |  |                  | clay infill with rare poli<br>16.34-16.36 20 degree  | e fracture                 |              |                            |
|        | -                 |                | 16.95      | D 47                                   |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  | planar smooth very tig<br>clay infill with rare poli | ht >1mm<br>shing.          |              |                            |
| 17 -   | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  | 16.34-16.37 90 degree<br>planar smooth closed        | e fracture                 |              |                            |
|        | -                 |                | 17.40      | D 48                                   |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  | rare slight polishing.                               |                            |              |                            |
| ·      | -                 |                |            |  |                          |                              |                           |                                       |  |                     | -              |            | Water flush:<br>9.75 - 25.25 | 90% rec       | 17.51            | +46.3         | 5                | Very weak da                    | ark grey MUDSTON                               | E recovered as dark grey v   | ery clayey       |  |                            |              |                            |
|        | -                 |                | 17.80      | D 49                                   |                          |                              |                           |                                       |  |                     |                | NA<br>NA   | J.I U - LU.LU                |               | (0.6             | 0)            |                  | angular fine t                  | to coarse gravel of v<br>AY FORMATION)         | very weak mudstone.  |                  |  |                            |              |                            |
| 18 -   | -                 |                |            |  |                          |                              |                           |                                       |  | 17.25 - 18.75       | 54             | NA         |                              |               | (0.0             | .,            |                  |                                 |  |  |                  |  |                            |              |                            |
|        | ]                 |                |            |  |                          |                              |                           |                                       |  |                     | 54             |            |                              |               | 18.20            | +45.6         | 6                | Very weak lo                    | cally weak arev to a                           | dark grey thickly laminated N                                      | UDSTONE with     |  |                            |              |                            |
|        | -                 |                | 18.50      | D 50                                   | _                        |                              |                           |                                       |  |                     |                | 70         |                              |               | 10.0             | ٥١            |                  | occasional p                    | ockets (1x30x25mm                              | n) of light grey silt. Fractures<br>anar smooth very tight with    | are 5 degrees    |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                | 170<br>370 |                              |               | (0.6             | 0)            |                  |                                 | AY FORMATION)                                  |  |                  |  |                            |              |                            |
| 10     | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               | 18.88            | +44.9         | 8                | Verv weak lo                    | cally weak dark are                            | y MUDSTONE recovered as  | s dark grev verv |  |                            |              |                            |
| 19 -   | ]                 |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  | clayey angul                    | ar fine to coarse gra<br>ith rare thin laminae | avel of very weak and weak   | dark grey        |  |                            |              |                            |
|        | -                 |                |            |  |                          |                              |                           |                                       |  |                     |                | NA<br>NA   |                              |               | (1.0             | 5)            |                  |                                 | AY FORMATION)                                  | or mini uark Udy.  |                  |  |                            |              |                            |
| · ·    | -                 |                |            |  |                          |                              |                           |                                       |  | 18.75 - 20.25       | 1 a. 1         | NA         |                              |               | (1.0             | ~/            |                  | (                               |  |  |                  |  |                            |              |                            |
|        | -                 |                | 19.70      | D 51                                   |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 | rey indistinctly lamir<br>dium spaced (90/310  | nated MUDSTONE. Fracture<br>0/420).                                | es are 5-20      |  |                            |              |                            |
| 20 -   | -                 |                |            |  |                          |                              |                           |                                       |  |                     | -              |            |                              | I             | 19.93            | +43.9         | 3                |                                 | AY FORMATION)                                  | continues on next sheet  | Y                | 19.97-20.20 Weak to                                  | very weak.                 |              |                            |
|        |                   |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
| Gene   | al Remark         | s              |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  | Boring / Chisel                 | -  | Tool   | Groundwater Entr |  |                            |              | 01-1                       |
|        |                   |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  | epths D                         | uration (mins)                                 | Tool   | No. Depth Re     | emarks   |                            |              | Sealed                     |
|        |                   |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
|        |                   |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |
| Notes  |                   |                |            |  |                          | _                            | olo oʻ                    | 0-4-21-11-2                           | Duran Di la composicione de la composicione |                     |                |            |                              |               |                  |               | Status           |                                 |  | Cooler 4.50  | -                | Borehole   |                            |              |                            |
| For ex | planation o       | of symbols     | and abbrev | viations see Key to                    | Exploratory Hole Reco    | ords. All                    | oject<br>oject No.        | Gatwick Northe<br>D2001-22            | ern Runway Project   | (INKP)              |                |            |                              |               |                  |               |                  | FINA                            | Δι   | Scale 1:50<br>Printed 22 Jul 2022                                  | 14.12.47         |  |                            | 3H103        |                            |
| depths | s and reduc       | Jeu levels l   | mmetres. S | ou aturri thickness                    | given in brackets in dep |                              | oject No.<br>arried out f |                                       | ction T/A Taylor Wo  | odrow               |                |            |                              |               |                  |               |                  | C IIN/                          |  |  | /                | AGS  | 6                          | 501103       |                            |
|        |                   |                |            |  |                          |                              |                           |                                       | alon n/n rayior WC   | .cai off            |                |            |                              |               |                  |               |                  |                                 |  | © Copyright SOCOTE   | EC UK Limited    | 100  |                            | Sheet 2 of 3 |                            |
|        |                   |                |            |  |                          |                              |                           |                                       |  |                     |                |            |                              |               |                  |               |                  |                                 |  |  |                  |  |                            |              |                            |



| Checke                         | ed                        | Dept                   |                                    | Dates                                  |   | Metho                           |                               |                | Equipment                | Rig Cre             | w Lo           | gger              | Logged<br>07 Mar 22    | Но            |                  | Cas           |                  |                                 |                                    |                               | Pepth Related Rem                             | arks                                |   |                            |              |        | SOCOTEC                |
|--------------------------------|---------------------------|------------------------|------------------------------------|--|---|---------------------------------|-------------------------------|----------------|--------------------------|---------------------|----------------|-------------------|------------------------|---------------|------------------|---------------|------------------|---------------------------------|------------------------------------|-------------------------------|---|-------------------------------------|---|----------------------------|--------------|--------|------------------------|
|                                |                           | 0.00 - 1<br>1.20 - 8   | 1.20 07 Mar<br>8.45 07 Mar         | r 22 - 07 Mar 22<br>r 22 - 09 Mar 22   |   | Hand dug insp<br>Cable percussi | pection pit.<br>ion drillina. |                | Hand tools<br>Dando 3000 | BB/BF<br>BB/BF      | 2 1            | MB<br>MB          | 07 Mar 22<br>08 Mar 22 | Depth<br>2.00 | Dia. (mm)<br>250 | Depth<br>2.00 | Dia. (mm)<br>250 | Depth                           | Remarks                            |                               |   |                                     |   | Ground Lev                 |              |        | 3.86 mOD               |
| CP                             |                           | 8.45 - 2               | 25.25 09 Mar                       | r 22 - 11 Mar 22                       |   | Rotary dri                      | rilling.                      |                | R67 Comacchio 3          |                     |                | NH                | 12 Apr 22              | 8.45          | 200              | 8.00          | 200              |                                 |                                    |                               |   |                                     |   | Coordinate                 |              |        | 529155.43<br>141631.50 |
| Approve                        | ed                        |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        | 25.25         | 150              | 25.25         | 150              |                                 |                                    |                               |   |                                     |   | National Gr                | 10           |        | 141631.50              |
| СР                             |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              | System |                        |
| 01                             |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| Dat                            | ite                       | Time                   |                                    | Samples                                |   |                                 | Field Tests                   |                | Samp / Test              | Coring              | TCR %<br>SCR % |                   | Water added            |               | Depth            | Level         | Legend           |                                 |                                    |                               | Strata Des                                    | cription                            |   |                            | Water        | Back   | till                   |
| Casi                           | ing \                     | Nater                  | Depth                              | Type & No.                             | Records   | Depth                           | Type Re                       | cords          | Casing Water             | Depth<br>(Diameter) | ROD            | lf<br>(mm)        | Flush details          |               | (Thickness       |               |                  |                                 |                                    | Ma                            | in  |                                     | Detail  | Chis                       | Entry        |        |                        |
| 20                             |                           |                        | 20.00                              | D 52                                   | -   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  | Weak dark g                     | rey indistinctly<br>lium spaced (9 | laminated M                   | UDSTONE. Fractu                               | res are 5-20                        |   |                            |              | -      | $\sim$                 |
| -                              |                           |                        | 20.40                              | D 53                                   |   |                                 |                               |                |                          |                     |                | 90<br>310         |                        |               | (0.90            | ))            |                  | (WEALD CL/                      | AY FORMATIO                        | N)                            |   |                                     |   |                            |              | -      |                        |
| _                              |                           |                        | 20.40                              |  |   |                                 |                               |                |                          |                     |                | 420               |                        |               | (                | ,             |                  |                                 |                                    |                               |   |                                     |   |                            |              | -      | $\sim$                 |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               | 20.83            | +43.03        |                  |                                 |                                    |                               |   |                                     | 20.83-20.99 90 deg  | ee fracture                |              | -      | $\bigcirc$             |
| 21 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          | 20.25 - 21.75       | 100<br>88      |                   |                        |               | 20.00            |               |                  | Weak dark g<br>MUDSTONE         | rey locally moo<br>with rare pock  | lerately weal<br>ets (1x10x5) | k grey locally indist<br>mm) of grey to light | inctly laminated<br>grev silt.      | planar rough partly   | pen with                   |              | -      | $\bigcirc$             |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     | 60             |                   |                        |               |                  |               |                  | Fractures are<br>very tight cle | 5 degree loca                      | ally medium s                 | spaced (180/605/91                            | 0) planar smooth                    | trace silt. Medium st<br>grey clayey limestor                   | e.                         |              | -      | $\bigcirc$             |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  | (WEALD CL/                      | AY FORMATIO                        | N)                            |   |                                     | 21.00-22.30 90 deg<br>planar smooth very                        | ee fracture<br>ight clean. |              | -      | ~                      |
| -                              |                           |                        | 21.60                              | D 54                                   | -   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     | 21.23-21.41 Verv st   | ff dark grev               |              | -      | $\sim$                 |
| -                              |                           |                        | 21.90                              | D 55                                   |   |                                 |                               |                |                          |                     |                | 180               |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     | indistinctly laminate<br>21.74-22.05 Modera                     | tely weak                  |              | -      | $\sim$                 |
| 22 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                | 180<br>605<br>910 |                        |               | (2.42            | 2)            |                  |                                 |                                    |                               |   |                                     | grey mudstone.<br>22.16-22.22 45 deg                            | aa nlanar                  |              | -      | $\sim$                 |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     | 100            | 910               |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     | smooth very tight cle   | ee planal<br>ean.          |              | -      | $\bigcirc$             |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          | 21.75 - 23.25       | 100            |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              | -      | $\bigcirc$             |
|                                |                           |                        | 22.57 - 22.87                      | C 56                                   |   |                                 |                               |                |                          |                     | 100            |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              | -      | $\bigcirc$             |
| 23 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              | -      | $\sim$                 |
| -                              |                           |                        | 23.15                              | D 57                                   |   |                                 |                               |                |                          |                     |                |                   |                        |               | 23.25            | +40.61        |                  |                                 |                                    |                               |   |                                     |   |                            |              | -      | $\sim$                 |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     | T              |                   |                        |               | 20.20            | -40.01        |                  | medium to w                     | idely spaced lo                    | cally closely                 | JDSTONE. Fracture<br>spaced (80/320/64        | es are 5 degree<br>0) planar smooth |   |                            |              | -      | $\sim$                 |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  | very tight loc                  | ally with trace                    | silt infill.                  | 1 (111)                                       | - / 1                               |   |                            |              | -      | $\bigcirc$             |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     | 100            |                   |                        |               |                  |               |                  |                                 |                                    | (N)                           |   |                                     |   |                            |              | -      | $\bigcirc$             |
| 24 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          | 23.25 - 24.75       | 100            | 180               |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     | 24.03 Weak dark gr  | ey laminated               |              | -      | $\bigcirc$             |
| -                              |                           |                        | 24.20                              | D 58                                   |   |                                 |                               |                |                          |                     | I I            | 380<br>650        |                        |               | (2.00            | ))            |                  |                                 |                                    |                               |   |                                     | mudstone.<br>24.05-24.20 Weak t                                 |                            |              | -      |                        |
| _                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                | 000               |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     | dark grey mudstone<br>stiff clay.                               | and very                   |              | -      | $\sim$                 |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   | aa fraatura                |              | -      | $\sim$                 |
| 25 — <sub>11 M</sub>           |                           |                        | 24.85                              | D 59                                   |   |                                 |                               |                |                          | 24.75 - 25.25       | 100<br>100     |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     | 24.82-24.98 90 degr<br>curved smooth very<br>trace silt infill. | tight with                 |              | -      | $\sim$                 |
| - 25.2                         | /lar 22<br>25             | 0420<br>3.11           | 24.99 - 25.24                      | C 60                                   |   |                                 |                               |                |                          | 20.20               | 100            |                   |                        |               | 25.25            | +38.61        |                  |                                 |                                    |                               |   |                                     | trace silt infill.  |                            |              | 25.25  | $\bigcirc$             |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               | 20.20            | +30.01        |                  |                                 | E                                  | IND OF EXPLOR                 | RATORY HOLE                                   |                                     |   |                            |              | 25.25  |                        |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| 26 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| _                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| 27 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| -                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| 28 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| 29 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| 30 —                           |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               | <u> </u>         |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| General Ren                    | marks                     |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  | oring / Chisell<br>epths D      | ing<br>uration (mins               | )                             | Tool  | Groundwater<br>No. Depth            |   |                            |              |        | Sealed                 |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
|                                |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               |   |                                     |   |                            |              |        |                        |
| Notes                          |                           |                        |                                    |  |   | Proj                            | ject G                        | atwick Norther | rn Runway Project (l     | NRP)                |                |                   |                        |               |                  |               | Status           |                                 |                                    | S                             | cale 1:50                                     |                                     | Borehole  |                            |              |        |                        |
| For explanati<br>depths and re | tion of syn<br>reduced le | mbols an<br>evels in i | nd abbreviation<br>metres. Stratur | ns see Key to Exp<br>m thickness giver | loratory Hole Records.<br>n in brackets in depth co | All                             |                               | 2001-22        | , -,-,-,(                | ,                   |                |                   |                        |               |                  |               |                  | FINA                            | AL.                                |                               | rinted 22 Jul 202                             | 2 14:12:47                          |   | E                          | 3H103        |        |                        |
|                                |                           |                        |                                    | ů.                                     |   |                                 |                               |                | tion T/A Taylor Wood     | drow                |                |                   |                        |               |                  |               |                  |                                 |                                    |                               | Copyright SOCOT                               |                                     | AGS   |                            | Sheet 3 of 3 |        |                        |
| L                              |                           |                        |                                    |  |   |                                 |                               |                |                          |                     |                |                   |                        |               |                  |               |                  |                                 |                                    |                               | Sopyrigin SOCOT                               |                                     |   |                            | Should UI J  |        |                        |



| Checked                      | Dept        |                      | Dates             |  | Meth                          |                            |                                      | Equipmen                |                 |                    | ogger    | Logged                 |               | ole              | Casi   | •                | Depth Related Remarks  |                             |                          |
|------------------------------|-------------|----------------------|-------------------|--|-------------------------------|----------------------------|--------------------------------------|-------------------------|-----------------|--------------------|----------|------------------------|---------------|------------------|--------|------------------|--|-----------------------------|--------------------------|
| CP                           |             | 4.45 07 Mar          |                   | 2                                      | Hand dug ins<br>Cable percuss | sion drilling              |                                      | Hand tools<br>Dando 300 | ) LM/J          | M                  | BA<br>MB | 07 Mar 22<br>10 Mar 22 | Depth<br>4.45 | Dia. (mm)<br>200 | 3.00   | Dia. (mm)<br>200 | Depth Remarks  | Ground Level<br>Coordinates | 63.86 mO<br>E 529221.7   |
| GF                           | 4.45 - 2    | 25.00 15 Mar         | 22 - 19 Mar 22    | 2                                      | Rotary d                      | drilling.                  |                                      | R67 Comacchie           | 305 DJ/J        | N                  | NH       | 08 Apr 22              | 25.00         | 150              | 23.40  | 150              |  | National Grid               | E 529221.7<br>N 141646.8 |
| Approved                     |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  |  | hallonar ond                | System                   |
| СР                           |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  |  |                             | -                        |
|                              |             |                      |                   |  |                               |                            |                                      |                         |                 | TCR %              |          |                        |               |                  |        |                  |  |                             |                          |
|                              | Time        |                      | Sample            |  |                               | Field 1                    |                                      | Samp / Test             | Coring<br>Depth | SCR %              | If       | Nater added            |               | Depth            | Level  | Legend           |  |                             | Water Backfill<br>Entry  |
| )                            | Water       | <b>Depth</b><br>0.10 | Type & No.<br>D 1 | Records                                | Depth                         | Туре                       | Records                              | Casing Water            | (Diameter)      | %                  | (mm)     | Flush details          |               | (Thickness       | 5)     |                  | Main Detail  | <u>ن</u>                    | Flush cover              |
| ,<br>07 Mar 22               | 2000<br>Dry | 0.30                 | ES 2              |  | 0.30                          | PID                        | 0.0 ppmv (Test 1)                    |                         |                 |                    |          |                        |               |                  |        |                  | Grass over soft to firm light brown slightly sandy slightly gravelly CLAY. Sand  |                             | T lush cover             |
| -                            |             | 0.50                 | D 3               |  | 0.50                          |                            | 0.0 ppinv (rest 1)                   |                         |                 |                    |          |                        |               |                  |        |                  | is fine to coarse. Gravel is angular to subangular fine to coarse of brick and flint.  |                             | 0.50                     |
| -                            |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               | (1.2             | 0)     |                  |  |                             |                          |
|                              |             | 1.00 - 1.20          | B 4               |  | 1.00                          | PID                        | 0.0 mm/ (Test 2)                     |                         |                 |                    |          |                        |               |                  |        |                  |  |                             |                          |
|                              | 0430<br>Dry | 1.00                 | ES 5              | -                                      | 1.00                          |                            | 0.0 ppmv (Test 2)                    |                         |                 |                    |          |                        |               | 1.20             | +62.66 |                  |  |                             |                          |
| - 09 Mar 22                  | 2000<br>Drv | 1.20<br>1.20         | D 6<br>D 7        |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  | 02.00  |                  | (MADE GROUND)<br>Firm yellowish brown mottled grey slightly sandy CLAY with occasional   |                             |                          |
| -                            | 2.9         | 1.50 - 2.00          | B 8               | -                                      |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  | pockets (up to 10x2x5mm) of black silt and rare rootlets. Sand is fine to<br>coarse.   |                             |                          |
| -                            |             | 1.90                 | D 9               |  |                               |                            |                                      |                         |                 |                    |          |                        |               | (1.3             | 0)     |                  |  |                             |                          |
| _                            |             | 2.00 - 2.45          | UT 11             | 91 blows 100% rec                      | 2.00                          | PID                        | 0.0 ppmv (Test 3)                    | 2.00 Dry                |                 |                    |          |                        |               |                  |        |                  |  |                             |                          |
| -                            |             | 2.00                 | ES 10             |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  |  |                             |                          |
| -                            |             | 2.50 - 2.90          | B 12              | -                                      |                               |                            |                                      |                         |                 |                    |          |                        |               | 2.50             | +61.36 |                  | (MADE GROUND)  |                             |                          |
| -                            |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               | (0.4             | 5)     |                  | Reddish brown gravelly clayey fine to coarse SAND. Gravel is subangular to<br>subrounded fine to coarse of mudstone and flint.   |                             |                          |
| 3 -                          |             | 2.95 - 3.00<br>2.95  | AMAL 41<br>D 13   | Combined samples.<br>D13 and D15.      | 3.00 - 3.45                   | SPT S                      | N=44 (5,7/8,9,13,14)                 | 3.00 Dry                |                 |                    |          |                        |               | 2.95             | +60.91 |                  | (MADE GROUND)  |                             |                          |
| -<br>10 Mar 22               | 0300        | 3.00                 | D 15              |  | 3.00                          | PID                        | ID TH52 Er 65%<br>0.0 ppmv (Test 4)  |                         |                 |                    |          |                        |               |                  |        |                  | Stiff yellowish brown mottled grey slightly gravelly slightly sandy CLAY. Sand<br>is fine to coarse. Gravel is subangular to subrounded fine to coarse of flint.   |                             |                          |
| - <u>3.00</u><br>_ 15 Mar 22 | Dry<br>1930 | 3.00                 | ES 14             |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  |  |                             |                          |
| - 3.00                       | Dry         |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               | (1.5             | 0)     |                  |  |                             |                          |
| _                            |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  |  |                             |                          |
| -                            |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  |  |                             |                          |
| -                            |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               | 4.45             | +59.41 |                  |  |                             |                          |
|                              |             | 4.55 - 5.90<br>4.55  | AMAL 42<br>D 16   | Combined samples.<br>D16, D17 and D18. |                               |                            |                                      |                         | 4.45 - 4.80     | 100<br>NA          |          |                        |               |                  |        |                  | (MADE GROUND)<br>Stiff brown to orangish brown mottled grey slightly sandy slightly gravelly 4.63-4.76 Very wea  | grey                        |                          |
| -                            |             |                      |                   |  |                               |                            |                                      |                         |                 | NA<br>100          |          |                        |               |                  |        |                  | CLAY with rare pockets (2x5x4mm) of fine orange sand. Sand is fine to siltstone. siltstone.  |                             |                          |
| -                            |             | 5.00                 | D 17              | _                                      |                               |                            |                                      |                         | 4.80 - 5.30     | NA<br>NA           |          |                        |               | (1.3             | 7)     |                  | weak light grey concrete and weak brown mudstone.  |                             |                          |
| -                            |             |                      |                   |  | 5.30 - 5.75                   | SPT C                      | N=24 (3,4/5,5,6,8)<br>ID TH72 Er 64% | 5.30 1.35               |                 |                    |          |                        |               |                  |        |                  | 5.30-5.40 AZCL   |                             |                          |
| -                            |             |                      |                   |  |                               |                            | ID 11/2 EI 04%                       |                         |                 |                    |          | Water flush:           | 100%          |                  |        |                  |  |                             |                          |
| -                            |             | 5.90                 | D 18              |  |                               |                            |                                      |                         |                 |                    |          | 4.45 - 6.80            | rec           | 5.82             | +58.04 |                  | (MADE GROUND)  |                             |                          |
| _                            |             | 5.90                 | D 16              |  |                               |                            |                                      |                         | 5.30 - 6.80     | 93<br>NA           |          |                        |               |                  |        |                  | Firm locally stiff brown to orangish brown slightly gravelly sandy CLAY with<br>occasional plant debris (2x4x1mm), rare rootlets. Sand is fine to medium.  |                             |                          |
| -                            |             |                      |                   |  |                               |                            |                                      |                         |                 | NA                 |          |                        |               |                  |        |                  | Gravel is subangular, medium to coarse of flint, limestone, brick and clinker.   |                             |                          |
| _                            |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               | (1.4             | 8)     |                  | 6.41-6.60 Becomes sandy gravelly clay.   | siignuy                     |                          |
| -                            |             |                      |                   |  | 6.80 - 7.25                   | SPT C                      |                                      | 6.80 2.50               |                 |                    |          |                        |               |                  |        |                  | 6.80-7.10 AZCL   |                             |                          |
| -                            |             |                      |                   |  |                               |                            | ID TH72 Er 64%                       |                         |                 |                    | NA<br>NA |                        |               |                  |        |                  |  |                             |                          |
| -                            |             |                      |                   |  |                               |                            |                                      |                         |                 |                    | NA       |                        |               | 7.30             | +56.56 |                  | Chiff arange to brownish groups long to a start of an and the start of |                             |                          |
| -                            |             |                      |                   |  |                               |                            |                                      |                         | 6.80 - 8.30     | 80<br>NA           |          | Water flush:           | 50% rec       |                  |        | ××               | Stiff orange to brownish orange locally mottled grey slightly gravelly slity<br>CLAY. Gravel is angular, fine of very weak orangish brown mudstone.  |                             |                          |
| -                            |             | 7.55 - 7.86          | C 19              | -                                      |                               |                            |                                      |                         |                 | NA                 |          | 6.80 - 8.30            |               |                  |        | ××               | (Possible WEALD ČLAY FORMATIÓN)  |                             |                          |
| -                            |             | 8.00                 | D 20              | _                                      |                               |                            |                                      |                         |                 |                    |          |                        |               | (1.4             | 3)     | ××               | × 8.00-8.15 Becomes  |                             |                          |
| -                            |             |                      |                   |  | 8.30 - 8.75                   | SPT C                      | N=34 (5,5/6,7,9,12)                  | 8.30 3.65               |                 |                    |          |                        |               | Ì                |        | ××               | Gravel is subround<br>medium of very wea   |                             |                          |
| -                            |             | 9 40 0 74            | 0.04              |  | 0.00 - 0.70                   | JETU                       | ID TH72 Er 64%                       | 0.00 0.00               |                 |                    |          |                        |               |                  |        | ××               | × mudstone.  |                             | 8.50                     |
| -                            |             | 8.40 - 8.71          | C 21              | _                                      |                               |                            |                                      |                         |                 |                    |          |                        |               | 8.73             | +55.13 | ××               |  |                             |                          |
| -<br>-<br>-                  |             |                      |                   |  |                               |                            |                                      |                         |                 | 100                |          |                        |               |                  |        |                  | Stiff grey slightly gravelly CLAY with rare pockets (1x20x3mm) of light grey<br>silty clay. Gravel is angular, fine to medium of extremely weak grey mudstone.   |                             |                          |
| -                            |             | 8.98 - 9.28          | C 22              | -                                      |                               |                            |                                      |                         | 8.30 - 9.80     | 77                 |          |                        |               | (0.9             | 2)     |                  | (WEALD CLAY FORMATION)   |                             |                          |
| -                            |             | 0.50                 | D 00              |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  | Extremely weak grey indistinctly laminated MUDSTONE with occasional locally very stiff.  | rown and                    |                          |
| -                            |             | 9.50                 | D 23              |  |                               |                            |                                      |                         |                 |                    |          |                        |               | 9.65             | +54.21 |                  | / pockets (2x40x3mm) of light grey silt. Fractures are 0-10 degrees closely to<br>medium spaced (10/134/410) planar closed, occasionally with a silt infill (up  |                             |                          |
| -                            |             |                      |                   |  | 9.80 - 10.07                  | SPT C                      | 100 (11,14 for<br>55mm/37,63 for     | 9.80 3.90               |                 | $\left  - \right $ |          |                        |               |                  |        |                  | to 0.5mm).<br>(WEALD CLAY FORMATION)   |                             |                          |
| · —                          |             |                      |                   |  |                               | 1                          | 65mm)<br>ID TH72 Er 64%              |                         |                 |                    |          |                        | •             |                  |        |                  | Hole continues on next sheet   |                             |                          |
| neral Remarks                |             |                      |                   | 1                                      | 1                             |                            | 12 11172 LI 0470                     | 1                       | 1               | 1                  |          |                        |               | 1                |        | Hard E           | Boring / Chiselling Groundwater Entries  |                             |                          |
|                              |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  | Depths Duration (mins) Tool No. Depth Remarks  |                             | Sea                      |
|                              |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  |  |                             |                          |
|                              |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  |  |                             |                          |
| es                           |             |                      |                   |  | _                             |                            | <b>a</b>                             | <b>D</b> - ·            |                 |                    |          |                        |               |                  |        | Status           | s Borehole   |                             |                          |
| explanation of syr           |             |                      |                   | Exploratory Hole Records               | s. All                        | oject<br>oject No          | Gatwick Northe<br>D2001-22           | ern Runway Projec       | t (NRP)         |                    |          |                        |               |                  |        |                  | Scale 1:50   | DL                          | 1104                     |
| uns and reduced le           | ieveis in i | metres. Stratur      | n inickness giv   | ven in brackets in depth o             |                               | oject No.<br>Irried out fo |                                      | ction T/A Taylor W      | odrow           |                    |          |                        |               |                  |        |                  | ACS  | DF                          | 1104                     |
|                              |             |                      |                   |  |                               |                            |                                      |                         |                 |                    |          |                        |               |                  |        |                  | © Copyright SOCOTEC UK Limited   | She                         | et 1 of 3                |



|   | Checked                                     | Dep                   |                  | Dates             |                       | Metho         |          |                 | Equipment            | Rig Cre       | w Lo           | ogger      | Logged        | Но      |       | Cas    | ing    |              |                        | Depth Related Remar                             | ks                       |                   | _                     |              | SOCOTEC   |
|---|---|-----------------------|------------------|-------------------|-----------------------|---------------|----------|-----------------|----------------------|---------------|----------------|------------|---------------|---------|-------|--------|--------|--------------|------------------------|---|--------------------------|-------------------|-----------------------|--------------|-----------|
| N         |   |                       |                  |                   |                       |               |          |                 |                      |               |                | BA         | 07 Mar 22     |         |       |        |        | Depth        | Remarks                |   |                          |                   |                       |              | 63.86 mOD |
|   | CP  |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $   | Approved                                    |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   | National Gri          | d            |           |
| No.         No. <th>CP</th> <th></th> <th>System</th>   | CP  |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              | System    |
| Normality       Normation   | UF  |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       | , · · · ·    |           |
| Normality       Normation   | Date  | Time                  |                  | Samples           |                       |               | Field Te | ests            | Samp / Test          | Coring        | TCR %<br>SCR % |            | Nater added   |         | Depth | Level  | Legend |              |                        | Strata Descri                                   | ption                    |                   | <u>.</u>              | Water        | Backfill  |
|   | Casing                                      | Water                 | Depth            | Type & No.        | Records               | Depth         | Туре     | Records         | Casing Water         | Depth         | RQD            |            | Flush details |         |       |        |        |              |                        | Main  |                          | Detail            | Chis                  | Entry        |           |
|   |   |                       | •                |                   |                       | -             |          |                 |                      | × /           |                | . /        |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| Image: Simple with the set of the s               | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        | medium space | ced (10/134/410)       | blanar closed, occasionally with                | a silt infill (up        |                   |                       |              |           |
|   | -]  |                       |                  |                   |                       |               |          |                 |                      | 9.80 - 11.30  | 100            |            |               |         |       |        |        |              | AY FORMATION)          |   |                          |                   |                       |              |           |
|   | -   |                       | 10.50 - 10.80    | C 24              |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              | ,                      |   |                          |                   |                       |              |           |
|   | 11 —  |                       | 11.00            | D 25              | -                     |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| 1         | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   | 11.10-11                 | .33 Unlaminat     | ed.                   |              |           |
| 1         | -   |                       |                  |                   |                       | 11.30 - 11.51 | SPTC     | 70mm/48,52 for  | 11.30 3.65           |               |                |            |               | 95% rec |       |        |        |              |                        |   | 11.45-11                 | .88 Very stiff o  | rey clay.             |              |           |
|   | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
|   | -   |                       |                  |                   |                       |               |          | 12 1112 21 0170 |                      |               | 100            | 260        |               |         | (4.24 | 4)     |        |              |                        |   |                          |                   |                       |              |           |
|   | 12 —  |                       | 12.05            | D 26              | -                     |               |          |                 |                      | 11.30 - 12.80 | 51             | 530<br>750 |               |         |       |        |        |              |                        |   | 11.98-12                 | 2.18 Very stiff g | grey clay.            |              |           |
|   | -   |                       |                  |                   |                       |               |          |                 |                      |               | 51             |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
|   | -   |                       | 12.45            | D 27              | -                     |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
|   | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
|   | 13 —  |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
|   |   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
|   | -   |                       |                  |                   |                       |               |          |                 |                      |               | 100            |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| 1       0.0   | -   |                       |                  |                   |                       |               |          |                 |                      | 12.80 - 14.30 |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| Image: Section 1       Section 2       Section  | -   |                       | 13.63 - 13.89    | C 28              | -                     |               |          |                 |                      |               |                |            |               |         | 13 89 | +40 07 |        |              | -                      |   | 13 80.13                 | 3.98 45 degree    | fracture              |              |           |
|   | 14  | 0330                  | 14 10            | D 29              |                       |               |          |                 |                      |               |                |            |               |         | 10.00 | 10.01  |        | (2x25x3mm)   | of light grev silt. 2  | possible fracture sets. Set 1 V                 | /idely spaced            |                   | indotaro.             |              |           |
| How we have been been been been been been been be   | 14.30                                       | 3.25                  | 14.10            | 0.20              |                       |               |          |                 |                      |               |                |            |               |         |       |        |        | (1300/1800/1 | 1810) 45 degree fr     | acture planar smooth partly op                  | en with traces           | 00.40 damas       | 6                     |              |           |
|   |   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        | planar smoo  | th verv tight clean    | with rare slight polishing.                     | 14.35-14                 | 1.56 TU degree    | raciure.              |              |           |
| 1         | -   |                       | 14.46 - 14.73    | C 30              |                       |               |          |                 |                      |               |                |            |               |         |       |        |        | (WEALD CL/   | AY FORMATION)          |   | 44.00.45                 |                   |                       |              |           |
| 1       132       0.31       1 <td>15 —</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td> <td>rencal</td> <td></td> <td></td>   | 15 —  |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   | rencal                |              |           |
| Image: Single |   |                       | 15 20            | D 31              |                       |               |          |                 |                      | 14.30 - 15.80 |                |            |               | 80% rec |       |        |        |              |                        |   |                          |                   |                       |              |           |
| 1     1 <td>-</td> <td></td> <td>10.20</td> <td>201</td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td>   | -   |                       | 10.20            | 201               |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| 1     1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td> <td>15.57-15</td> <td>5.70 90 degree</td> <td>fracture</td> <td></td> <td>15.50</td>   |   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   | 15.57-15                 | 5.70 90 degree    | fracture              |              | 15.50     |
| A T T T T T T T T T T T T T T T T T   | -   |                       | 15.70            | D 32              |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   | trace silt               | infill.           |                       |              |           |
| 1         | 16 —  |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   | 15.57-16                 | 6.20 Weak bro     | wnish                 |              |           |
| 1     15.59-16.89     C.33     1     15.90-16.30     West best well wells       1     15.59-16.89     C.33     1     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90-17.30     100     1     15.90 <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>groymac</td> <td></td> <td></td> <td></td> <td></td>   | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   | groymac                  |                   |                       |              |           |
| 1       1550-158       0.3       1  | -   |                       |                  |                   |                       |               |          |                 |                      | 45.00 47.00   | 100            |            |               |         | (4.9  | 1)     |        |              |                        |   | 16.50-16                 | 5.58 Weak to e    | extremely             |              |           |
| r       17.70       0.34       18.00       0.35       19.00   | -   |                       | 16 50 16 80      | C 33              |                       |               |          |                 |                      | 15.80 - 17.30 | 100<br>92      |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| a     11.00     0.35     13.00     0.36     13.00     10.30     10.00     10.50     10.00     10  | -   |                       | 10.09 - 10.09    | 0.00              |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| a       18.00       D 35       b       19.00 <td>17 —</td> <td></td> <td>17.10</td> <td>D 34</td> <td>-</td> <td></td> <td></td> <td></td> <td>   </td> <td></td>   | 17 —  |                       | 17.10            | D 34              | -                     |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| a       18.00       D 35       b       19.00 <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td> <td><math>\vdash</math></td> <td></td> <td><i>.</i> .</td> <td></td> <td></td>   | -   |                       |                  |                   |                       |               |          |                 |                      |               | $\vdash$       |            |               |         |       |        |        |              |                        |   |                          |                   | <i>.</i> .            |              |           |
| a       1800       D 35       D 35       D 4       19.00 <td></td> <td>planar sr</td> <td>mooth tight cle</td> <td>e tracture<br/>an with</td> <td></td> <td></td>  |   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   | planar sr                | mooth tight cle   | e tracture<br>an with |              |           |
| a - 18.00       0.35       0.35       0.00       17.30 · 18.80       100       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       15.60 · 20.30       00       16.60       16.60       16.60       100       100       15.60 · 20.30       00       16.60       100       100       15.60 · 20.30       100       16.60       16.60       100 <t< td=""><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>rare sligh</td><td>ht polishing.</td><td></td><td></td><td></td></t<>   | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   | rare sligh               | ht polishing.     |                       |              |           |
| a       1   | 18 —  |                       | 18.00            | D 35              | -                     |               |          |                 |                      | 17.30 - 18.80 |                |            | Water flush:  | 70% rec |       |        |        |              |                        |   |                          |                   |                       |              |           |
| a - 1       19.30       D 36       Image: Section of the sectin of the section of the section of the sectin of the section of th  | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   | 18.23-18                 | 3.32 Possible I   | NI.                   |              |           |
| a - 1       19.30       D 36       Image: Section of the sectin of the section of the section of the sectin of the section of th  | _   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| a - 1       19.30       D 36       Image: Section of the sectin of the section of the section of the sectin of the section of th  | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| 19.30       D 36       D 36       Image: Display and Dis  | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         | 18.80 | +45.06 |        |              |                        |   |                          |                   |                       |              |           |
| 19.30       D 36       19.30       D 36       18.80 - 20.30       97       18.80 - 20.30       97       18.80 - 20.30       97       18.80 - 20.30       19.22       19.22       19.23       19.22 <td< td=""><td>19 —</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>   </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Fractures po</td><td>ssibly 2 sets. Set</td><td>1 5 to 10 degrees closely to me</td><td>dium, locally</td><td>00.00</td><td></td><td></td><td></td></td<>   | 19 —  |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        | Fractures po | ssibly 2 sets. Set     | 1 5 to 10 degrees closely to me                 | dium, locally            | 00.00             |                       |              |           |
| Image: Second Symbols and abbreviations see Key to Exploratory Hole Records. All the second symbols and abbreviation to a burdet in depth or burdet in depth o               | -   |                       | 19.30            | D 36              | -                     |               |          |                 |                      |               |                |            |               |         |       |        |        | very closely | spaced (30/10/140      | <ol><li>planar smooth tight trace loc</li></ol> | ally grey 1mm   19.22-19 | 9.26 NI.          |                       |              |           |
| Image: Section of symbols and abbreviations see Key to Exploratory Hole Records. All physical reduced levels in metres. Stratum thickness given in brackets in depth ocum.       Project No. Stratus Project (NRP) Project No. 2001-22 Carried out for WINCI Construction T/A Taylor Woodrow.       Status FINAL       Scale 1:50 Printed 22 Jul 2022 14:12:48       Borehole         Build of symbols and abbreviations see Key to Exploratory Hole Records. All physical reduced levels in metres. Stratum thickness given in brackets in depth ocum.       Project No. Ozonturgion T/A Taylor Woodrow.       Status FINAL       Scale 1:50 Printed 22 Jul 2022 14:12:48       Borehole       BH104   | _   |                       |                  |                   |                       |               |          |                 |                      | 18.80 - 20.30 |                |            |               |         |       |        |        | planar smoot | th tight with trace of |   | 19.53-19                 |                   |                       |              |           |
| neral Remarks       Hard Boring / ChiseIlling<br>Depths       Tool       Groundwater Entries<br>No. Depth       Seal         tes<br>rexplanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>puts and reduced levels in metres. Stratum thickness given in brackets in depth colum.       Project       Gatwick Northern Runway Project (NRP)<br>Project No.       Status       Scale       1:50<br>Printed       Borehole         FINAL       FINAL       FINAL       Berehole       BH104  | -   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        | (WEALD CL    |                        |   | planar sr                | mootn very tig    | nt clean.             |              |           |
| neral Remarks       Hard Boring / ChiseIlling<br>Depths       Tool       Groundwater Entries<br>No. Depth       Seal         tes<br>rexplanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>puts and reduced levels in metres. Stratum thickness given in brackets in depth colum.       Project       Gatwick Northern Runway Project (NRP)<br>Project No.       Status       Scale       1:50<br>Printed       Borehole         FINAL       FINAL       FINAL       Berehole       BH104  | 20 —  |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              | Hol                    | e continues on next sheet                       |                          |                   |                       |              |           |
| Depths       Duration (mins)       Tool       No.       Depth Remarks       Seal         tes       rexplanation of symbols and abbreviations see Key to Exploratory Hole Records, All potts and reduced levels in metres. Stratum thickness given in brackets in depth column.       Project No.       Gatwick Northern Runway Project (NRP)       Status       Scale       1:50       Borehole         Project No.       D2001-22       D201-22       FINAL       FINAL       Scale       1:50       BH104   |   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| tes<br>rexplanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>pths and reduced levels in metres. Stratum thickness given in brackets in depth colum.<br>Carried out for VINCI Construction T/A Taylor Woodrow<br>UNCI Construction T/A Taylor Woodrow  | General Remarks                             |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        | Tacl  |                          |                   |                       |              | 0!        |
| resplanation of symbols and abbreviations see Key to Exploratory Hole Records. All other and reduced levels in metres. Stratum thickness given in brackets in depth column. FINAL For Carried out for VINCI Construction T/A Taylor Woodrow.  |   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        | eptns D      | uration (mins)         | 1001  | ואס. שפאד Remarks        |                   |                       |              | Sealed    |
| resplanation of symbols and abbreviations see Key to Exploratory Hole Records. All other and reduced levels in metres. Stratum thickness given in brackets in depth column. FINAL For Carried out for VINCI Construction T/A Taylor Woodrow.  |   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| resplanation of symbols and abbreviations see Key to Exploratory Hole Records. All other and reduced levels in metres. Stratum thickness given in brackets in depth column. FINAL For Carried out for VINCI Construction T/A Taylor Woodrow.  |   |                       |                  |                   |                       |               |          |                 |                      |               |                |            |               |         |       |        |        |              |                        |   |                          |                   |                       |              |           |
| r explanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>oths and reduced levels in metres. Stratum thickness given in brackets in depth column. Project No. D2001-22<br>Carried out for VINCI Construction T/A Taylor Woodrow.   | Notes                                       |                       |                  |                   |                       | Pro           | iect     | Gatwick Northe  | ern Runway Project   | NRP)          |                |            |               |         |       |        | Status |              |                        | Scale 1.50                                      |                          | Borehole          |                       |              |           |
| Carried out for VINCI Construction T/A Taylor Woodrow   | For explanation of sy<br>depths and reduced | /mbols a<br>levels in | and abbreviation | s see Key to Expl | loratory Hole Records | . All         |          |                 |                      |               |                |            |               |         |       |        |        | FINA         | AL.                    |   | 4:12:48                  |                   | F                     | SH104        |           |
| © Copyright SOCOTEC UK Limited Sheet 2 of 3   | and 1944004                                 |                       |                  |                   |                       |               |          |                 | ction T/A Taylor Woo | drow          |                |            |               |         |       |        |        |              | -                      |   | 100                      |                   |                       |              |           |
|   |   |                       |                  |                   |                       |               |          |                 | -                    |               |                |            |               |         |       |        |        |              |                        | © Copyright SOCOTE                              | C UK Limited             |                   | 5                     | Sheet 2 of 3 |           |



| 0      | hecked            | De              |             | Dates                              |                           | Meth                          | od                          | Equipment                | Rig Cre       | w Lo           | ogger      | Logged<br>07 Mar 22    | Но            | ole        | Cas           | ing        | Depth Related Remarks   |             |                | SOCO     |           |
|--------|-------------------|-----------------|-------------|------------------------------------|---------------------------|-------------------------------|-----------------------------|--------------------------|---------------|----------------|------------|------------------------|---------------|------------|---------------|------------|---|-------------|----------------|----------|-----------|
|        |                   | 0.00            | - 1.20 07   | Mar 22 - 07 Mar<br>Mar 22 - 10 Mar | r 22<br>r 22              | Hand dug ins<br>Cable percuss | pection pit.                | Hand tools<br>Dando 3000 |               |                | BA<br>MB   | 07 Mar 22<br>10 Mar 22 |               | Dia. (mm)  |               | Dia. (mm)  | Depth Remarks   | Ground Le   |                | 63.86 n  |           |
|        | CP                | 4.45 -          | 25.00 15    | Mar 22 - 10 Mai<br>Mar 22 - 19 Mai | r 22                      | Cable percuss<br>Rotary d     | rilling.                    | R67 Comacchio            |               | V              | NH         | 10 Mar 22<br>08 Apr 22 | 4.45<br>25.00 | 200<br>150 | 3.00<br>23.40 | 200<br>150 |   | Coordinate  |                | E 52922  |           |
| A      | proved            | _               |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   | National G  | rid            | N 14164  | 3.84      |
|        |                   |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                | System   |           |
|        | CP                |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | Date              | Time            |             | Sam                                | ples                      |                               | Field Tests                 | Samp / Test              | Coring        | TCR %<br>SCR % | V          | Nater added            |               |            |               |            | Strata Description  |             | Watar          |          |           |
|        |                   |                 |             |                                    |                           |                               |                             |                          | Depth         | DOD            | If         |                        |               | Depth      | Level         | Legend     |   | , ico       | Water<br>Entry | Backfill |           |
| 20 -   | Casing            | Water           | Depth       | Type & No                          | b. Records                | Depth                         | Type Records                | Casing Water             | (Diameter)    | %              | (mm)       | Flush details          |               | (Thickness | 5)            |            | Main         Detail           Weak locally very weak grey locally dark grey locally thickly laminated   | 5           | <b>)</b>       |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               | (2.9       | 4)            |            | fractured MUDSTONE with rare pockets (1x30x5mm) of light grey silt.<br>Fractures possibly 2 sets. Set 1 5 to 10 degrees closely to medium, locally 20.30-20.40 40 degr      | o frocturo  |                |          | $\square$ |
|        | ]                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               | (2.0       | .,            |            | very closely spaced (30/10/140) planar smooth tight trace locally grey 1mm  |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            | silt infill. Set 2 40 to 50 degrees widely locally medium spaced (230/400/830) partly open planar sr  |             |                |          | >         |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                | NI<br>134  |                        |               |            |               |            |   | v clav.     |                |          | $\sim$    |
| 21 -   | -                 |                 |             |                                    |                           |                               |                             |                          | 20.30 - 21.80 | 100<br>60      | 410        |                        |               |            |               |            | (WEALD CLAY FORMATION) 20.80-20.89 Firm gre<br>20.89-21.02 50 degr  | e fracture  |                |          |           |
|        | -                 |                 | 21.20       | D 37                               |                           |                               |                             |                          |               | 51             |            |                        |               |            |               |            | planar smooth tight v<br>clay infill.   |             |                |          | $\leq$    |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            | 21.07-21.08 30 degr<br>21.14-21 20.40 degr  | e fracture. |                |          | $\sim$    |
|        | _                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            | 21.14-21.20 40 degr<br>21.25-21.74 Stiff gre  | clay.       |                |          | $\sim$    |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               | ┝──╀           |            | Water flush:           | 80% rec       | 21.74      | +42.12        |            | Weak grey locally brownish grey MUDSTONE. Fractures are 5 to 15 degrees<br>medium spaced locally closely spaced (110/300/480) planar smooth very tight<br>12/12/37 E Medere | h closed.   |                |          |           |
| 22 -   | -                 |                 | 21.85 - 22  | .16 C 38                           |                           | 1                             |                             |                          |               |                | 1          | 20.30 - 23.40          |               |            |               |            | with trace silt infill.   | ely weak.   |                |          |           |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            | (WEALD CLAT FORWATION) 22.16-22.66 90 degr  |             |                |          |           |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               | 97             |            |                        |               |            |               |            | planar smooth tight o<br>slight polishing.  | ccasional   |                |          | $\geq$    |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          | 21.80 - 23.40 | 97<br>97       |            |                        |               |            |               |            | angrepolisting.   |             |                |          | $\geq$    |
|        | -                 |                 | 22.95       | D 39                               |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          | $\geq$    |
| 23 -   | -                 |                 | 22.95       | 0.39                               |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          | $\sim$    |
|        | 18 Mar 2<br>23.40 | 22 0403<br>4.63 |             |                                    |                           | 1                             |                             |                          |               |                | 40         |                        |               | (3.2       | 6)            |            |   |             |                |          | $\sim$    |
|        | 18 Mar :          | 22 2000         |             |                                    |                           | 1                             |                             |                          |               |                | 225<br>550 |                        |               | (3.2       | 0)            |            | 23.40-23.45 AZCL  |             |                |          | $\sim$    |
|        | 23.40             | 4.63            |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            | 23.77-23.81 Stiff clay  |             |                |          | $\sim$    |
| 24 -   | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            | 23.99-24.12 70 degr   |             |                |          | $\sim$    |
| 24     | -                 |                 |             |                                    |                           |                               |                             |                          | 23.40 - 25.00 | 97<br>94       |            | Water flush:           | 70% rec       |            |               |            | planar smooth tight of  |             |                |          | $\leq$    |
|        | -                 |                 |             |                                    |                           |                               |                             |                          | 20.40 20.00   | 94             |            | 23.40 - 25.00          | 10/0100       |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          | $\geq$    |
|        | -<br>19 Mar :     | 22 0340         | 24.70       | D 40                               |                           |                               |                             |                          |               |                |            |                        |               |            |               |            | 24.69-24.77 Locally<br>very stiff clay.   | veak to     |                |          | $\sim$    |
| 25 -   | 25.00             | Dry             |             |                                    |                           |                               |                             |                          |               |                |            |                        |               | 25.00      | +38.86        |            | 24.77-24.88 90 degr   |             |                | 25.00    |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            | END OF EXPLORATORY HOLE planar smooth tight of  | ean.        |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
| 26 -   | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | ]                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | ]                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
| 27 -   | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | 1                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          | ļ         |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          | ļ         |
| 28 -   | -                 |                 |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | ]                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
| 29 -   | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        | -                 |                 |             |                                    |                           | 1                             |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
| 30 -   | -                 |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        |                   |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
| Gene   | al Remar          | ks              |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            | Boring / Chiselling<br>Donths Duration (mins) Tool No. Donth Remarks  |             |                |          |           |
|        |                   |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            | Depths Duration (mins) Tool No. Depth Remarks   |             |                | S        | ealed     |
|        |                   |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
|        |                   |                 |             |                                    |                           |                               |                             |                          |               |                |            |                        |               |            |               |            |   |             |                |          |           |
| Notes  |                   |                 |             |                                    |                           |                               |                             | _                        |               |                |            |                        |               |            |               | Status     | Borehole  |             |                |          | $\neg$    |
| For ex | planation         | of symbols      | and abbrevi | ations see Key to                  | o Exploratory Hole Recor  | as. Ali                       |                             | ern Runway Project       | (NRP)         |                |            |                        |               |            |               |            | Scale 1:50  |             |                |          |           |
| depth  | s and redu        | ced levels i    | n metres. S | ratum thickness                    | given in brackets in dept | h column. Pro                 | bject No. D2001-22          | otion T/A Tool 14        | drow          |                |            |                        |               |            |               |            | FINAL Printed 22 Jul 2022 14:12:48 © Copyright SOCOTEC UK Limited   | l           | 3H104          |          |           |
| L      |                   |                 |             |                                    |                           | Ca                            | rried out for VINCI Constru | ction T/A Taylor Woo     | Durow         |                |            |                        |               |            |               |            | © Copyright SOCOTEC UK Limited  |             | Sheet 3 of 3   |          |           |
|        |                   |                 |             |                                    |                           |                               |                             |                          |               |                |            | -                      |               |            |               |            |   | -           | -              |          |           |



| Checked                      | Dept        |                            | Dates                             |  | Meth                          | od            |  | Equip           | ment        | Rig Crev       |           | ger      | Logged                 | Но            | ole              | Cas           | ing              |  | Depth Related Remarks  |  |                             |                | SOCOTEC                    |
|------------------------------|-------------|----------------------------|-----------------------------------|--|-------------------------------|---------------|--|-----------------|-------------|----------------|-----------|----------|------------------------|---------------|------------------|---------------|------------------|--|--|--|-----------------------------|----------------|----------------------------|
| СР                           |             | 1.20 01 Mar<br>5.45 01 Mar |                                   |  | Hand dug ins<br>Cable percuss | pection pit   |  | Hand<br>Dando   |             | BB/BR<br>BB/BR |           |          | 01 Mar 22<br>01 Mar 22 | Depth<br>6.45 | Dia. (mm)<br>200 | Depth<br>6.00 | Dia. (mm)<br>200 | Depth Remarks  |  |  | Ground Level<br>Coordinates | I              | 61.70 mOD<br>E 529096.04   |
| CP                           | 5.45 - 6    | 6.45 02 Mar<br>5.20 03 Mar | 22 - 03 Mar 2                     | 22   | Cable percuss<br>Rotary d     | sion drilling |  | Dando<br>Comacc |             | DS/BR<br>DS/BR |           |          | 02 Mar 22<br>12 Apr 22 | 25.20         | 150              | 22.20         | 150              |  |  |  | National Grid               |                | E 529096.04<br>N 141628.75 |
| Approved                     | 0.45 - 20   | 5.20 05 Wai                | 22 - 00 Mai 2                     | .2   | Notary u                      | mining.       |  | Comacc          | 10 303      | DS/DIC         |           | .0       | 12 Api 22              |               |                  |               |                  |  |  |  | National Griu               |                | System                     |
| СР                           |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  |  |  |  |                             |                | -,                         |
| I                            |             |                            |                                   |  |                               |               |  |                 |             |                | TCR %     |          |                        |               |                  |               |                  |  |  |  | L                           |                |                            |
| Date                         | Time        |                            | Sample                            |  |                               | Field         | Tests                                    | Samp / Te       |             | Depth          | SCR %     | If       | later added            |               | Depth            | Level         | Legend           |  | Strata Description   |  | isel.                       | Water<br>Entry | Backfill                   |
| 0                            | Water       | Depth<br>0.05              | Type & No.                        | Records  | Depth                         | Туре          | Records                                  | Casing W        | ater (Dia   | ameter)        | % (n      | nm) F    | lush details           |               | (Thickness       | 5)            |                  | (MADE GROUND)  | Main   | Detail   | ວັ                          | -              | Flush cover                |
| - 01 Mar 22<br>- 0.00        | 2000<br>Dry | 0.10 - 0.20                | B 2                               |  | 0.30                          | PID           | 0.0                                      |                 |             |                |           |          |                        |               | (0.4)            | 0)            |                  | Firm brown slightly sandy                            | gravelly CLAY. Sand is fine. Gravel is subangular to   |  |                             |                | Flush cover                |
|                              |             | 0.30<br>0.45               | ES 3<br>D 4                       |  | 0.30                          |               | 0.0 ppmv (Test 1)                        |                 |             |                |           |          |                        |               | 0.40             | +61.30        |                  |  | n of flint, red brick and chalk.<br>avelly CLAY. Gravel is subangular to subrounded              | _  |                             |                | 0.50                       |
| -                            |             | 0.60 - 0.70                | B 5                               |  |                               |               |  |                 |             |                |           |          |                        |               | 0.55             | 5) +61.15     |                  | fine to coarse of very weak                          |  | /  |                             |                |                            |
|                              |             | 0.80                       | D6                                |  | 4.00                          |               |  |                 |             |                |           |          |                        |               |                  |               |                  | Very stiff orangish brown s                          | lightly gravelly CLAY with frequent fragments of<br>ar to subrounded fine to coarse of very weak |  |                             |                |                            |
| 1                            |             | 1.00<br>1.20               | ES 7<br>D 8                       |  | 1.00<br>1.20 - 1.65           | PID<br>SPT S  | 0.0 ppmv (Test 2)<br>N=34 (3,4/7,7,9,11) | 1.20            |             |                |           |          |                        |               | (1.1             | 5)            |                  | mudstone.  |  |  |                             |                | 1.00                       |
| -                            |             | 1.20                       | D 9                               |  | 1.20 - 1.00                   |               | ID TH52 Er 53%                           | 1.20            | Jiy         |                |           |          |                        |               |                  |               |                  | (WEALD CLAY FORMATIO                                 | (  |  |                             |                |                            |
|                              |             | . =0                       |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  | -  |  |  |                             |                |                            |
| -                            |             | 1.70<br>1.70 - 2.00        | D 10<br>B 11                      | -  |                               |               |  |                 |             |                |           |          |                        |               | 1.70             | +60.00        |                  | Stiff brown mottled grey ar                          | d red slightly gravelly CLAY. Gravel is subangular<br>ium of dark brown mudstone.                |  |                             |                |                            |
| 2 —                          |             | 2.00                       | D 12                              |  | 2.00 - 2.45                   | SPT S         | N=36 (3,4/6,9,9,12)<br>ID TH52 Er 53%    | 2.00            | Dry         |                |           |          |                        |               |                  |               |                  | (WEALD CLAY FORMATIC                                 |  |  |                             |                |                            |
|                              |             |                            |                                   |  |                               |               | 10 11102 LI 3070                         |                 |             |                |           |          |                        |               |                  |               |                  | -  |  |  |                             |                |                            |
|                              |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  | -  |  |  |                             |                |                            |
|                              |             | 2.70 - 4.00<br>2.70        | AMAL 45<br>D 13                   | Combined samples.<br>B14 and B17.                    |                               |               |  |                 |             |                |           |          |                        |               | (0.0)            | 0)            |                  | -  |  |  |                             |                |                            |
| 3 -                          |             | 2.70 - 3.00                | B 14                              |  | 3.00 - 3.45                   | SPT S         | 50 (4,8/8,11,15,16 for                   | 2.00            | Dry         |                |           |          |                        |               | (2.3)            | 0)            |                  | -  |  |  |                             |                |                            |
|                              |             | 3.00                       | D 15                              |  |                               |               | 70mm)<br>ID TH52 Er 53%                  |                 |             |                |           |          |                        |               |                  |               |                  | -  |  |  |                             |                |                            |
|                              |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  | -  |  |  |                             |                |                            |
|                              |             | 3.70                       | D 16                              |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  | _  |  |  |                             |                |                            |
|                              |             | 3.70 - 4.00<br>4.00        | B 17<br>D 18                      |  | 4.00 - 4.45                   | SPT S         | N=36 (6,9/8,8,9,11)                      | 2.00            | 201         |                |           |          |                        |               | 4.00             | +57.70        |                  | -  |  |  |                             |                |                            |
| 4 _                          |             | 4.00                       | 018                               |  | 4.00 - 4.45                   | 5-15          | ID TH52 Er 53%                           | 2.00            | Jiy         |                |           |          |                        |               | 4.00             | +57.70        |                  | Stiff orangish brown mottle<br>(WEALD CLAY FORMATION | d grey slightly sandy CLAY. Sand is fine.  |  |                             |                |                            |
| -                            |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  |  | ,  |  |                             |                |                            |
|                              |             | 4.70                       | D 40                              |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               | <u> </u>         |  |  |  |                             |                | · · · · · · · · ·          |
| 02 Mar 22                    |             | 4.70                       | D 19                              |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               | <u> </u>         | -  |  |  |                             |                |                            |
| 5 <u>2.00</u><br>- 02 Mar 22 | Dry<br>2000 | 5.00 - 5.45                | UT 20                             | 63 blows 100% rec                                    | 5.00                          | HV            | p 80kPa, r 35kPa                         | 2.00            | Dry         |                |           |          |                        |               |                  |               | <u> </u>         | -  |  |  |                             |                |                            |
| 2.00                         | Dry         |                            |                                   |  |                               |               |  | 2.00            | Jiy         |                |           |          |                        |               | (2.4             | 5)            | <u> </u>         | -  |  |  |                             |                |                            |
|                              |             |                            |                                   |  | 5.45                          | HV            | p 75kPa, r 26kPa                         | -               | -           |                |           |          |                        |               |                  |               | <u> </u>         |  |  |  |                             |                |                            |
| -                            |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               | <u> </u>         |  |  |  |                             |                |                            |
| 6 —                          |             | 6.00                       | D 21                              |  | 6.00 - 6.45                   | SPT S         | N=40 (3,7/9,9,10,12)                     | 2.00 5          | .83         |                |           |          |                        |               |                  |               | <u> </u>         | -  |  |  |                             |                |                            |
| 03 Mar 22                    | 0400        |                            |                                   |  |                               |               | ID AR3762 Er 65%                         |                 |             |                |           |          |                        |               |                  |               |                  | -  |  |  |                             |                |                            |
| - 6.00                       | 5.23        | 0.55                       | D 00                              |  |                               |               |  |                 |             |                | 100<br>NA |          |                        | 1             | 6.45             | +55.25        |                  | Firm light yellowish grey to                         | light grey CLAY  | _  |                             |                |                            |
| -                            |             | 6.55                       | D 22                              |  |                               |               |  |                 | 6.4         | 5 - 6.70       | NA<br>NA  | _        |                        |               | 6.70             | 5)<br>+55.00  |                  | (WEALD CLAY FORMATIC                                 |  | _  |                             |                |                            |
| 7                            |             | 7.00                       | D 23                              |  |                               |               |  |                 |             |                |           | NA       |                        |               |                  |               |                  | closely spaced thin lamina                           | e of light grey clay. Gravel is subangular to<br>n of reddish brown mudstone.                    |  |                             |                | sp                         |
| / -<br>-                     |             | 7.00                       | 0 20                              |  |                               |               |  |                 |             |                |           | NA<br>NA |                        |               | (0.70            | 0)            |                  | (WEALD CLAY FORMATIC                                 |  | 7.16-7.31 Moderately                             | weak                        |                |                            |
| -                            |             |                            |                                   |  |                               |               |  |                 | 67          | 0 - 8.20       | 100<br>63 |          |                        |               | 7.40             | +54.30        |                  | Extremely to very weak to                            | cally weak light grey MUDSTONE with extremely  | reddish brown to brow<br>grey sandstone          | ů l                         |                | 7 50                       |
|                              |             | 7.48 - 7.75                | C 24                              |  |                               |               |  |                 | 0.1         | 0 0.20         | 63        |          |                        |               |                  |               |                  | closely to very closely spa                          | ced thin laminae of white siltstone and frequent   | 7.20-7.26 90 degree f<br>planar rough clean.     | acture                      |                | 7.50                       |
| -                            |             | 7.80                       | D 25                              |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  | medium to widely (locally)                           | f white siltstone. Fractures are 0-10 degrees<br>very closely to closely) spaced (50/420/1750)   |  |                             |                |                            |
| 8 —                          |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  | clay and light grey silt infill                      | ean randomly orientated with occasional dark grey (up to 1mm).                                   |  |                             |                |                            |
|                              |             |                            |                                   |  |                               |               |  |                 |             | ľ              |           |          |                        |               |                  |               |                  | (WÉALD ČLAÝ FORMATIO                                 | DN)  |  |                             |                |                            |
|                              |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  |  |  |  | .                           |                |                            |
|                              |             |                            |                                   |  |                               |               |  |                 |             |                | 100       |          |                        |               |                  |               |                  |  |  | 8.69-8.70 Stiff light gr<br>8.76-9.19 Becomes v  | ey clay.<br>ery weak        |                |                            |
| 9 —                          |             |                            |                                   |  |                               |               |  |                 | 8.2         | 0 - 9.70       | 99<br>95  |          |                        |               |                  |               |                  |  |  | light grey mudstone.<br>8.81-8.93 85 degree f    |                             |                |                            |
|                              |             | 9.20                       | D 26                              |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  |  |  | planar rough with light<br>infill (up to 0.5mm). |                             |                |                            |
|                              |             | 9.32 - 9.65                | C 27                              |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  |  |  | 8.83-9.14 Becomes w                              | eak.                        |                |                            |
|                              |             |                            |                                   |  |                               |               |  |                 |             | ŀ              |           |          |                        |               |                  |               |                  |  |  |  |                             |                |                            |
| 10 —                         |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        | I             |                  |               |                  |  | Hole continues on next sheet   | 9.87-10.17 90 degree                             | fracture                    |                |                            |
|                              |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  |  |  |  |                             |                |                            |
| General Remarks              |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  | Boring / Chiselling<br>Depths Duration (mins         | Groundwater B<br>b) Tool No. Depth   |  |                             |                | Sealed                     |
|                              |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               | 1                |  |  |  |                             |                | Sealeu                     |
|                              |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  |  |  |  |                             |                |                            |
|                              |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               | -                |  | I  |  |                             |                |                            |
| Notes                        | mbole a-    | ad abbroviation            | e eee Koute I                     | Exploratory Hole Desc-1                              | Pro                           | oject         | Gatwick Northe                           | ern Runway P    | roject (NRP | )              |           |          |                        |               |                  |               | Status           | ;  | Scale 1:50   | Borehole   |                             |                |                            |
| depths and reduced           | levels in r | metres. Stratur            | is see key to b<br>m thickness gi | Exploratory Hole Records<br>ven in brackets in depth | column. Pro                   | oject No.     | D2001-22                                 |                 |             |                |           |          |                        |               |                  |               |                  | FINAL  | Printed 22 Jul 2022 14:12:49   |  | В                           | H106           |                            |
|                              |             |                            |                                   |  | Ca                            | rried out fo  | VINCI Construe                           | ction T/A Taylo | or Woodrow  |                |           |          |                        |               |                  |               |                  |  | © Copyright SOCOTEC UK Limited   | AGS  | Sł                          | neet 1 of 3    |                            |
| ·                            |             |                            |                                   |  |                               |               |  |                 |             |                |           |          |                        |               |                  |               |                  |  |  |  |                             |                |                            |



| Checked         | De    | pth                            | Dates             |  | Meth                          | od            |               | Equipment                | Rig Cre             | ew Lo          | ogger       | Logged                        | Но            | le               | Cas           | ing              | Depth Related Remarks   |               |            | SOCOTEC     |
|-----------------|-------|--------------------------------|-------------------|--|-------------------------------|---------------|---------------|--------------------------|---------------------|----------------|-------------|-------------------------------|---------------|------------------|---------------|------------------|---|---------------|------------|-------------|
|                 |       | - 1.20 01 Mar<br>- 5.45 01 Mar |                   |  | Hand dug ins<br>Cable percuss |               |               | Hand tools<br>Dando 3000 | BB/BF               | २ ।            | KD<br>KD    | 01 Mar 22<br>01 Mar 22        | Depth<br>6.45 | Dia. (mm)<br>200 | Depth<br>6.00 | Dia. (mm)<br>200 | Depth Remarks   | Ground Level  |            | 61.70 mOD   |
| CP              | 5.45  | - 6.45 02 Mar                  | 22 - 03 Mar 22    |  | Cable percuss                 | ion drilling. |               | Dando 2500               | DS/BF               | र   ।          | MB          | 02 Mar 22                     | 6.45<br>25.20 | 200<br>150       | 6.00<br>22.20 | 200<br>150       |   | Coordinates   |            | E 529096.04 |
| Approved        | 6.45  | - 25.20 03 Mar                 | 22 - 08 Mar 22    |  | Rotary d                      | rilling.      |               | Comacchio 30             | 5 DS/BF             | ~   (          | CD          | 12 Apr 22                     |               |                  |               |                  |   | National Grid |            | N 141628.75 |
| CP              |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            | System      |
| CP              |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            |             |
| Date            | Time  |                                | Samples           | ;  |                               | Field Te      | ests          | Samp / Test              | Coring              | TCR %<br>SCR % | ,           | Water added                   |               | Depth            | Level         | Legend           | Strata Description  | el.           | Water      | Backfill    |
| Casing          | Water | Depth                          | Type & No.        | Records  | Depth                         | Туре          | Records       | Casing Water             | Depth<br>(Diameter) | RQD            | lf<br>(mm)  | Flush details                 |               | (Thickness       |               | Legenu           | Main Detail   |               | Entry      | Dackini     |
| 10              |       |                                |                   |  |                               |               |               |                          | (2.4                |                | ()          |                               |               |                  | ,             |                  | Extremely to very weak, locally weak light grey MUDSTONE with extremely planar rough with grey cl   |               |            |             |
|                 |       | 10.20                          | D 28              |  |                               |               |               |                          |                     |                |             |                               |               | (5.9             | 0)            |                  | closely to very closely spaced thin laminae of white siltstone and frequent<br>partings (up to 80x2mm) of white siltstone. Fractures are 0-10 degrees reddish brown specks. | /             |            |             |
| -               |       |                                |                   |  |                               |               |               |                          | 9.70 - 11.20        | 100            |             |                               | 4000/         | (5.9             | 0)            |                  | medium to widely (locally very closely to closely) spaced (50/420/1750) 10.39-10.50 Very stiff light  | nt grey       |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     | 93<br>61       |             | Water flush:<br>6.45 - 14.70  | 100%<br>rec   |                  |               |                  | planar rough or smooth clean randomly orientated with occasional dark grey<br>clay and light grey silt infill (up to 1mm).  | io of uno     |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | (WEALD CLAY FORMATION) 10.78-10.86 90 degree fr<br>planar rough with light gr   |               |            |             |
| -               |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | infill (up to 0.5mm).   |               |            |             |
| -               |       | 11.30                          | D 29              |  |                               |               |               |                          |                     | 100            |             |                               |               |                  |               |                  |   |               |            |             |
| _               |       | 11.40 - 11.70                  | C 30              |  |                               |               |               |                          | 11.20 - 11.70       | 100<br>100     | 50          |                               |               |                  |               |                  |   |               |            |             |
| -               |       |                                |                   |  |                               |               |               |                          |                     | $\vdash$       | 300<br>1360 |                               |               |                  |               |                  | 11.77-11.86 70 degree fr  | acture        |            |             |
| 12 —            |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | planar smooth clean.<br>11.83-11.91 45 degree fr  | acture        |            |             |
| -               |       | 11.96 - 12.26<br>12.20         | C 31<br>D 32      |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | planar rough with dark gi   | rey clay      |            |             |
|                 |       | 12.20                          | 5.02              |  |                               |               |               |                          | 11.70 - 13.20       | 97<br>97       |             |                               |               |                  |               |                  | infill (up to 2mm).   |               |            |             |
|                 |       | 1                              |                   |  |                               |               |               |                          |                     | 89             |             |                               |               |                  |               |                  |   |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            |             |
| 13 —            |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            |             |
| ]               |       |                                |                   |  |                               |               |               |                          |                     | $\vdash$       |             |                               |               | 13.30            | +48.40        |                  | 13.15-13.20 AZCL<br>13.26-13.37 80 degree fr  | acture        |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     | [              |             |                               |               | 10.00            | ±40.4U        |                  | Very weak to weak, locally extremely weak grey to dark grey MUDSTONE.<br>Fracture set 1; 0-10 degrees planar smooth clean or with occasional light to                       |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | dark grey clay infill (up ro 1mm) and medium, locally closely spaced 13.67-13.73 NI dark grey   |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          | 40.00 44.70         | 100            |             |                               |               |                  |               |                  | (40/390/1300). Fracture set 2; 80-90 degrees planar rough and smooth clean gravelly clay. Gravel is a fine to coarse of mudstor   | ngular        |            |             |
| 14 —            |       | 14.00                          | D 33              |  |                               |               |               |                          | 13.20 - 14.70       | 79<br>76       |             |                               |               |                  |               |                  | (WEALD CLAY FORMATION) 13.84-14.10 Stiff to very  |               |            |             |
| -               |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | dark grey to grey clay.<br>14.10-14.50 Extremely w  | /eak.         |            |             |
| -               |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | 14.45-14.65 65 degrees  |               |            |             |
|                 |       | 14.60                          | D 34              |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | frequent partings (up to<br>60x2mm) of light grey sil   | t.            |            |             |
| -               |       |                                |                   |  |                               |               |               |                          |                     |                | NI<br>390   |                               |               | (3.2             | 0)            |                  | 14.70-14.76 Extremely w<br>14.87-14.89 Very stiff cla   | /eak.         |            |             |
| 15 —            |       |                                |                   |  |                               |               |               |                          |                     |                | 1030        |                               |               |                  |               |                  | 14.07-14.09 Very Sull Cla   | y.            |            |             |
| -               |       | 15.08 - 15.33                  | C 35              |  |                               |               |               |                          |                     | 100<br>94      |             |                               |               |                  |               |                  | 15.38-15.45 Stiff to very   | etiff         |            |             |
| -               |       | 15.55                          | D 36              |  |                               |               |               |                          | 14.70 - 16.20       | 94<br>83       |             |                               |               |                  |               |                  | light grey clay.  | Sun           |            |             |
| -               |       |                                |                   |  |                               |               |               |                          |                     | 000            |             |                               |               |                  |               |                  | 15.80-16.33 Extremely to  |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | closely spaced thin and t   | hick          |            |             |
| 16              |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | laminae of light grey silts   | tone.         |            |             |
| -               |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            |             |
| _               |       |                                |                   |  |                               |               |               |                          |                     | -              |             |                               |               | 16.50            | +45.20        |                  | Very weak to weak, locally extremely weak to moderately weak dark grey  |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     | 100            |             |                               |               |                  |               |                  | fractured (locally NJ MUDSTONE. Fractures are 0-10 degrees very closely to<br>closely spaced (20/150/600) planar smooth or rough clean with rare dark grey                  |               |            |             |
| 17 —            |       |                                |                   |  |                               |               |               |                          | 16.20 - 17.70       | 76             |             |                               |               |                  |               |                  | clay infill (up to 0.5mm); 40-50 degrees medium spaced (30/550/1880) planar of weak mudstone.   |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     | 47             |             |                               |               |                  |               |                  | with dark grey clay infill (up to 1mm).   |               |            |             |
| -               |       | 17.50                          |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | (WEALD CLAY FORMATION) grey clayey angular to subangular fine to coarse   |               |            |             |
|                 |       | 17.50                          | D 37              |  |                               |               |               |                          |                     |                |             | Woter fluib                   | 0.00/         |                  |               |                  | of weak to moderately w<br>mudstone.  |               |            |             |
|                 |       | 1                              |                   |  |                               |               |               |                          |                     |                | NI<br>NI    | Water flush:<br>14.70 - 20.70 | 90% rec       | (2.7             | 5)            |                  | 16.79-16.87 Moderately  | weak.         |            |             |
| 18              |       |                                |                   |  |                               |               |               |                          |                     |                | NI          |                               |               | (2.7)            | - /           |                  | 16.87-16.97 Extremely w<br>16.97-17.01 NI very wea  | k to          |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     | 100            |             |                               |               |                  |               |                  | weak dark brownish grey<br>mudstone with randomly   | ,             |            |             |
|                 |       |                                |                   |  |                               |               |               |                          | 17.70 - 19.20       | 100<br>64      |             |                               |               |                  |               |                  | orientated fractures plan   |               |            |             |
|                 |       | 18.65                          | D 38              |  |                               |               |               |                          |                     | 44             |             |                               |               |                  |               |                  | smooth or rough.<br>17.01-17.11 Extremely w   | eak.          |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | 17.11-17.22 NI extremely<br>dark grey mudstone with   | / weak        |            |             |
| 19 —            |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | randomly orientated frac  | tures         |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     | $\vdash$       | +           |                               |               | 19.25            | +42.45        |                  | Weak to moderately weak, locally very weak to extremely weak dark grey to<br>grey fractured MUDSTONE. Fractures are 0-10 degrees closely to medium rough.                   |               |            |             |
|                 |       | 19.40 - 19.70                  | C 39              |  |                               |               |               |                          |                     | 100            |             |                               |               |                  |               |                  | spaced (90/320/1160) planar smooth or rough clean with rare dark grey clay 17.86-17.90 20 degree fr   | acture        |            |             |
|                 |       | 15.40 - 19.70                  | 0.38              |  |                               |               |               |                          |                     | 95<br>87       |             |                               |               |                  |               |                  | planar rough with dark grey clay or light grey silt infill (up to 1mm); 80-90 clay infill (up to 1mm).  |               |            |             |
|                 |       | 19.90                          | D 40              |  |                               |               |               |                          | 19.20 - 20.70       |                |             |                               |               |                  |               |                  | degrees planar smooth or rough clean. 18.05-18.24 NI very wea<br>(WEALD CLAY FORMATION)   | k to          |            |             |
| 20 —            |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | Hole continues on next sheet  |               |            |             |
| General Remarks |       | 1                              |                   |  |                               |               |               |                          |                     |                | [           |                               |               |                  |               | Hard B           | Boring / Chiselling Groundwater Entries   |               |            |             |
| General Remarks | 5     |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | Depths Duration (mins) Tool No. Depth Remarks   |               |            | Sealed      |
| 1               |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            |             |
| Notes           |       |                                |                   |  | Pro                           | ject          | Gatwick North | ern Runway Project       | (NRP)               |                |             |                               |               |                  |               | Status           | S Scale 1:50 Borehole   |               |            |             |
|                 |       |                                |                   | ploratory Hole Record<br>in in brackets in depth | is. All                       | ject No.      | D2001-22      |                          |                     |                |             |                               |               |                  |               |                  |   | RI            | H106       |             |
|                 |       | moues. Sudiul                  | n uniokriess yive | an an brackets in deptil                         |                               | ried out fo   |               | uction T/A Taylor Woo    | odrow               |                |             |                               |               |                  |               |                  |   |               |            |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  | © Copyright SOCOTEC UK Limited  | Sh            | eet 2 of 3 |             |
|                 |       |                                |                   |  |                               |               |               |                          |                     |                |             |                               |               |                  |               |                  |   |               |            |             |



| Checked            | Dep         |                  | Dates  |   | Meth                                       | od                          | Equipment                  | Rig Cr          |                       | iger Lo    | gged    | Hole          | e l              | Casi   | ing              |                                  |   | Depth Related Rema   | arks  |  |              | SOCO               |
|--------------------|-------------|------------------|--|---|--|-----------------------------|----------------------------|-----------------|-----------------------|------------|---------|---------------|------------------|--------|------------------|----------------------------------|---|--|---|--|--------------|--------------------|
|                    | 0.00 -      | 1.20 01 Mar      | r 22 - 02 Mar 22<br>r 22 - 02 Mar 22               |   | Hand dug ins<br>Cable percuss              | pection pit.                | Hand tools<br>Dando 3000   | BB/BI           | х К                   | D 01       |         |               | Dia. (mm)<br>200 |        | Dia. (mm)<br>200 | Depth                            | Remarks                                 |  |   | Ground L                                 |              | 61.70              |
| CP                 | 5.45 -      | 6.45 02 Mar      | 22 - 02 Mar 22<br>22 - 03 Mar 22<br>22 - 08 Mar 22 |   | Cable percuss<br>Cable percuss<br>Rotary d | sion drilling.              | Dando 2500<br>Comacchio 30 | DS/B            | र   М                 | IB 02 I    |         | 6.45<br>25.20 | 200<br>150       | 22.20  | 200<br>150       |                                  |   |  |   | Coordinat<br>National 0                  |              | E 52909<br>N 14162 |
| Approved           | 0.45 - /    | 25.20 U3 Mar     | 22 - 08 Mar 22                                     |   | Rotary d                                   | nilling.                    | Comacchio 30               | 5 DS/B          |                       | 12         | Apr 22  |               |                  |        |                  |                                  |   |  |   | National                                 | aria         | N 14162<br>System  |
| СР                 |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              | System             |
|                    | L           |                  |  |   | 1  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| Date               | Time        |                  | Samples  |   |  | Field Tests                 | Samp / Test                | Coring<br>Depth | TCR %<br>SCR %<br>RQD | Water      | added   |               | Depth            | Level  | Legend           |                                  |   | Strata Desc  | ription   |  |              | Backfill           |
| 20 Casing          | Water       | Depth            | Type & No.   | Records   | Depth                                      | Type Records                | Casing Water               | (Diameter)      | RQD<br>% (r           | nm) Flush  | details |               | (Thickness       | )      |                  |                                  |   | Main   |   |  | SE Entry     |                    |
| -                  |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  | Weak to moo<br>grey fracture     | lerately weak, loca<br>d MUDSTONE. Fr   | ally very weak to extremely we<br>ractures are 0-10 degrees clos | eak dark grey to sely to medium weak grey to                    |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  | spaced (90/3<br>infill (up to 1) | 320/1160) planar s<br>mm): 40-50 degree | mooth or rough clean with rar<br>es medium to widely spaced (·   | re dark grey clay orientated fra<br>(490/850/3120) smooth rough |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  | planar rough                     | with dark grey cla<br>ar smooth or roug | ay or light grey silt infill (up to 1                            | 1mm); 80-90 18.34-18.65 E<br>very weak.                         | xtremely weak to                         |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  | AY FORMATION)                           |  | 18.43-18.65 M   | l extremely weak                         |              |                    |
| 21 —               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | dark grey mu  |  |              |                    |
|                    |             | 21.20            | D 41   |   |  |                             |                            |                 | 100                   |            |         |               |                  |        |                  |                                  |   |  | planar smooth   | ntated fractures<br>or rough.            |              |                    |
|                    |             |                  |  |   |  |                             |                            | 20.70 - 22.20   | 82<br>72              |            |         |               |                  |        |                  |                                  |   |  | clay  | rm to stiff grey                         |              |                    |
| -                  |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | 19.02-19.07 S<br>grey clay.                                     | tiff grey to light                       |              |                    |
| 22 —               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | 20.09-20.16 \   | ery stiff dark grey<br>y clay. Gravel is |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               | (5.95            | j)     |                  |                                  |   |  | subangular to   | angular fine to                          |              |                    |
|                    |             | 22.50            | D 42   |   |  |                             |                            |                 |                       | NI         |         |               |                  |        |                  |                                  |   |  | coarse of mu<br>20.30-20.36                                     | ) degree fracture                        |              | $\sim$             |
|                    |             |                  |  |   |  |                             |                            |                 | 1                     | 205<br>160 |         |               |                  |        |                  |                                  |   |  | infill (up to 0.5   | with light grey silt mm).                |              |                    |
| 23 —               |             |                  |  |   |  |                             |                            | 22.20 - 23.70   | 100<br>76             |            |         | 80% rec       |                  |        |                  |                                  |   |  | 21.00-21.12 S<br>dark grey clay                                 | tiff to very stiff                       |              | $\sim$             |
|                    |             |                  |  |   |  |                             |                            |                 | 71                    | 20.70      | - 25.20 |               |                  |        |                  |                                  |   |  | 21.12-21.31 v   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | mudstone.<br>21.31-21.42 S                                      |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | slightly grave  | y clay. Gravel is                        |              |                    |
|                    |             | 23.70 - 24.05    | C 43   |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | coarse of mu  |  |              |                    |
| 24 —               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | clay.   | rm light grey silty                      |              |                    |
|                    |             | 24.25            | D 44   |   |  |                             |                            |                 | 97                    |            |         |               |                  |        |                  |                                  |   |  | 22.90-22.92 F<br>grey.  | rm dark brownish                         |              |                    |
|                    |             | 24.42 - 24.77    | C 45   |   |  |                             |                            | 23.70 - 25.20   | 94<br>88              |            |         |               |                  |        |                  |                                  |   |  | 23.11-23.30 N<br>grey clayey a                                  | l dark brownish<br>gular to              |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | subangular fir<br>of weak to mo                                 | e to coarse gravel                       |              |                    |
| 25 —               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | mudstone wit  | randomly                                 |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            | 1       |               | 25.20            | +36.50 |                  |                                  | END                                     | OF EXPLORATORY HOLE  |   | casional dark                            |              | 25.20              |
| -                  |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | grey clay infill<br>23.30-23.47 S                               | (up to 1mm).<br>tiff to very stiff       |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | grey clay.<br>25.00-25.04 S                                     | tiff dark grey clay.                     |              |                    |
| 26 —               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | 25.15-25.20 A   | ZCL                                      |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| -                  |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| 27 —               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| -                  |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| 28 —               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| 29 —               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| 30 -               |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| General Remarks    |             |                  |  |   |  |                             |                            |                 |                       |            |         | I             |                  |        |                  | oring / Chisel                   |   | <b>T</b> 1   | Groundwater Entries   |  |              |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  | epths D                          | uration (mins)                          | ΤοοΙ   | No. Depth Remarks   |  |              | 5                  |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |
| L                  |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  | <u> </u>  |  |              |                    |
| Notes              | wmbola -    | and approviation | n can Kauta F                                      | loratory Holo Deserve                           | Pro  | ject Gatwick North          | ern Runway Project         | (NRP)           |                       |            |         |               |                  |        | Status           |                                  |   | Scale 1:50   | Bore  |  |              |                    |
| depths and reduced | l levels in | n metres. Stratu | m thickness giver                                  | loratory Hole Records<br>i in brackets in depth | 5. All                                     | ject No. D2001-22           |                            |                 |                       |            |         |               |                  |        |                  | FINA                             | AL.                                     | Printed 22 Jul 2022  | 14:12:49  |  | BH106        |                    |
|                    |             |                  |  |   | Car  | rried out for VINCI Constru | uction T/A Taylor Woo      | odrow           |                       |            |         |               |                  |        |                  |                                  |   | © Copyright SOCOTE   | 14:12:49<br>EC UK Limited                                       |  | Sheet 3 of 3 |                    |
|                    |             |                  |  |   |  |                             |                            |                 |                       |            |         |               |                  |        |                  |                                  |   |  |   |  |              |                    |



| g. D<br>R70 C<br>Tests Sam<br>Records Casing<br>0.1 ppmv (Test 1)<br>0.0 ppmv (Test 2)  | 20 Damp   | Depth R   | CR %<br>CR %<br>GR %<br>ft (mm)  | 16 Mar 22<br>16 Mar 22<br>05 Apr 22  | Depth<br>4.30<br>13.60  | Dia. (mm)<br>200<br>131<br>Depth<br>(Thickness)<br>0.15<br>(0.85)<br>1.00<br>1.20  | 4.50<br>Level<br>+58.12<br>+57.27  | Dia. (mm)<br>153<br>Legend   | Depth       Remarks         Depth       Remarks         Strata Description       Strata Description         Main         (TOPSOIL)         Grass over soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets (up to 20x2x2mm). Sand is fine to coarse. Gravel is angular to (subrounded fine to coarse of concrete and brick.         (MADE GROUND)       Dark brown occasionally mottled light brown clayey slightly gravelly fine to |   | 58.27 mOD<br>E 529385.77<br>N 141691.46<br>System<br>Vater<br>Entry<br>Flush cover<br>0.50   |
|---|---|---|--|--|---|--|--|--|--|---|--|
| R70 C           Tests         Sam           Records         Casing           0.1 ppmv (Test 1)         0.0 ppmv (Test 2)           N=19 (3,3/3,5,5,6)         1.20           N=19 (3,3/3,5,5,6)         1.20           0.0 ppmv (Test 3)         2.00           50 (4,7/9,13,15,13 for 70mm)         3.00           ID TH52 Er 53%         3.00 | amp / Test Corin<br>Ding Water (Dia<br>20 Damp<br>20 Dry  | ing TC<br>SC<br>Depth R   | CR %<br>CR %<br>CR %<br>If   | Water added  |   | 131<br>Depth<br>(Thickness)<br>0.15<br>(0.85)<br>1.00<br>1.20  | Level<br>+58.12<br>+57.27  | Legend   | Main (TOPSOIL) Grass over soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets (up to 20x2x2mm). Sand is fine to coarse. Gravel is angular to (subrounded fine to coarse of concrete and brick. (MADE GROUND) Dark brown occasionally mottled light brown clayey slightly gravelly fine to   | National Grid   | N 141691.46 System Vater Flush cover   |
| Records         Casing           0.1 ppmv (Test 1)         -           0.0 ppmv (Test 2)         -           N=19 (3,3/3,5,5,6)         1.20           ID TH52 Er 53%         2.00           50 (4,7/9,13,15,13 for<br>70mm)         3.00           ID TH52 Er 53%         3.00   | 20 Damp   | Depth R   | CR%<br>RQD If  |  |   | (Thickness)<br>(0.15)<br>(0.85)<br>1.00<br>(0.20)<br>1.20  | +58.12   |  | Main (TOPSOIL) Grass over soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets (up to 20x2x2mm). Sand is fine to coarse. Gravel is angular to (subrounded fine to coarse of concrete and brick. (MADE GROUND) Dark brown occasionally mottled light brown clayey slightly gravelly fine to   |   | System Vater Backfill Flush cover  |
| Records         Casing           0.1 ppmv (Test 1)         -           0.0 ppmv (Test 2)         -           N=19 (3,3/3,5,5,6)         1.20           ID TH52 Er 53%         2.00           50 (4,7/9,13,15,13 for<br>70mm)         3.00           ID TH52 Er 53%         3.00   | 20 Damp   | Depth R   | CR%<br>RQD If  |  |   | (Thickness)<br>(0.15)<br>(0.85)<br>1.00<br>(0.20)<br>1.20  | +58.12   |  | Main (TOPSOIL) Grass over soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets (up to 20x2x2mm). Sand is fine to coarse. Gravel is angular to (subrounded fine to coarse of concrete and brick. (MADE GROUND) Dark brown occasionally mottled light brown clayey slightly gravelly fine to   | ÷ E   | Flush cover  |
| Records         Casing           0.1 ppmv (Test 1)         -           0.0 ppmv (Test 2)         -           N=19 (3,3/3,5,5,6)         1.20           ID TH52 Er 53%         2.00           50 (4,7/9,13,15,13 for<br>70mm)         3.00           ID TH52 Er 53%         3.00   | 20 Damp   | Depth R   | CR%<br>RQD If  |  |   | (Thickness)<br>(0.15)<br>(0.85)<br>1.00<br>(0.20)<br>1.20  | +58.12   |  | Main (TOPSOIL) Grass over soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets (up to 20x2x2mm). Sand is fine to coarse. Gravel is angular to (subrounded fine to coarse of concrete and brick. (MADE GROUND) Dark brown occasionally mottled light brown clayey slightly gravelly fine to   | ÷ E   | Flush cover  |
| Records         Casing           0.1 ppmv (Test 1)         -           0.0 ppmv (Test 2)         -           N=19 (3,3/3,5,5,6)         1.20           ID TH52 Er 53%         2.00           50 (4,7/9,13,15,13 for<br>70mm)         3.00           ID TH52 Er 53%         3.00   | 20 Damp   | Depth R   | RQD IT   |  |   | (Thickness)<br>(0.15)<br>(0.85)<br>1.00<br>(0.20)<br>1.20  | +58.12   |  | Main (TOPSOIL) Grass over soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets (up to 20x2x2mm). Sand is fine to coarse. Gravel is angular to (subrounded fine to coarse of concrete and brick. (MADE GROUND) Dark brown occasionally mottled light brown clayey slightly gravelly fine to   | ÷ E   | Flush cover  |
| 0.1 ppmv (Test 1)           0.0 ppmv (Test 2)           N=19 (3,3/3,5,5,6)           ID TH52 Er 53%           0.0 ppmv (Test 3)           0.0 ppmv (Test 3)           50 (4,7/9,13,15,13 for<br>70mm)           ID TH52 Er 53%  | 20 Damp<br>00 Dry   |   | //   |  |   | (0.15)<br>0.15 (0.85)<br>1.00 (0.20)<br>1.20   | +58.12   |  | (TOPSOIL)<br>Grass over soft dark brown slightly gravelly slightly sandy CLAY with frequent<br>rootlets (up to 20x2x2mm). Sand is fine to coarse. Gravel is angular to<br>subrounded fine to coarse of concrete and brick.<br>(MADE GROUND)<br>Dark brown occasionally mottled light brown clayey slightly gravelly fine to  |   |  |
| 0.0 ppmv (Test 2)<br>N=19 (3,3/3,5,5,6)<br>ID TH52 Er 53%<br>0.0 ppmv (Test 3)<br>2.00<br>50 (4,7/9,13,15,13 for<br>70mm)<br>ID TH52 Er 53%   | 00 Dry  |   |  |  |   | (0.85)<br>1.00<br>1.20   | +57.27   |  | rootlets (up to 20x2x2mm). Sand is fine to coarse. Gravel is angular to<br>subrounded fine to coarse of concrete and brick.<br>(MADE GROUND)<br>Dark brown occasionally mottled light brown clayey slightly gravelly fine to   |   | 0.50   |
| N=19 (3,3/3,5,5,6)<br>ID TH52 Er 53%         1.20           0.0 ppmv (Test 3)         2.00           50 (4,7/9,13,15,13 for<br>70mm)<br>ID TH52 Er 53%         3.00   | 00 Dry  |   |  |  |   | 1.00<br>(0.20)<br>1.20   | +57.27   |  | (MADE GROUND)<br>Dark brown occasionally mottled light brown clayey slightly gravelly fine to  |   | 0.50   |
| N=19 (3,3/3,5,5,6)<br>ID TH52 Er 53%         1.20           0.0 ppmv (Test 3)         2.00           50 (4,7/9,13,15,13 for<br>70mm)<br>ID TH52 Er 53%         3.00   | 00 Dry  |   |  |  |   | (0.20)<br>1.20   |  |  |  |   |  |
| N=19 (3,3/3,5,5,6)<br>ID TH52 Er 53%         1.20           0.0 ppmv (Test 3)         2.00           50 (4,7/9,13,15,13 for<br>70mm)<br>ID TH52 Er 53%         3.00   | 00 Dry  |   |  |  |   | (0.20)<br>1.20   |  |  | coarse SAND. Gravel is angular to subrounded fine to coarse of concrete,   |   |  |
| ID TH52 Er 53%<br>0.0 ppmv (Test 3)<br>2.00<br>50 (4,7/9,13,15,13 for<br>70mm)<br>ID TH52 Er 53%  | 00 Dry  |   |  |  |   | 1.20   |  |  | brick and macadam.<br>(MADE GROUND)  |   | 1.00   |
| 2.00<br>50 (4,7/9,13,15,13 for<br>70mm)<br>ID TH52 Er 53%   |   |   |  |  |   |  | +57.07   |  | Light brown slightly gravelly clayey fine to coarse SAND with rare fragments<br>(up to 80x50x15mm) of timber. Gravel is subangular to subrounded fine to   |   |  |
| 2.00<br>50 (4,7/9,13,15,13 for<br>70mm)<br>ID TH52 Er 53%   |   |   |  |  | 1   | (0.80)   | )  |  | coarse of concrete.  |   |  |
| 2.00<br>50 (4,7/9,13,15,13 for<br>70mm)<br>ID TH52 Er 53%   |   |   |  |  |   |  | ·  |  | CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to<br>medium of ironstone.   |   |  |
| 50 (4,7/9,13,15,13 for 3.00<br>70mm)<br>ID TH52 Er 53%  |   |   | 1  |  |   | 2.00   | +56.27   | ×  | (WEALD CLAY FORMATION)<br>Firm brown rarely mottled light grey silty CLAY.   |   | · · · · · · · · · · · · · · · · · · ·  |
| 70mm)<br>ID TH52 Er 53%   |   |   |  |  |   |  |  | ××   | (WEALD CLAY FORMATION)   |   |  |
| 70mm)<br>ID TH52 Er 53%   |   |   |  |  |   | (1.00)   | )  | ××   |  |   |  |
| 70mm)<br>ID TH52 Er 53%   |   |   |  |  |   |  |  | ××   |  |   |  |
| ID TH52 Er 53%  | uu Dry  |   |  |  |   | 3.00   | +55.27   | ×  | Very stiff grey silty CLAY.  |   |  |
| 0.0 ppmv (Test 4)   |   |   |  |  |   |  |  | <u>×_^_</u> _×   | (WEALD CLAY FORMATION)   |   |  |
|   |   |   |  |  |   |  |  | ××   |  |   |  |
|   |   |   |  |  |   | (1.30)   | )  | ××   |  |   |  |
|   | 00 Dry  |   |  |  |   |  |  | ××   |  |   |  |
| 10mm)<br>ID TH52 Er 53%   |   |   |  |  | .   | 4 30   | +53 97   | ××   |  |   |  |
| 0.0 ppmv (Test 5)   |   | 80 - 4.60   | 0 NA   | Water flush:   | 100%  |  |  | ××   | stiff greyish brown silty clay.  | Slightly gravelly.  |  |
|   | (10   | 0011111)  | NA<br>NA   | 4.30 - 4.00  | Tec   | 4.70   | +53.57   | ××   | Very stiff fissured reddish brown CLAY Fissures are 0-15 degrees and 80-90 medium  | f brown and dark  |  |
|   |   |   | NA<br>NA   |  |   | · · ·  |  |  | degrees, extremely closely spaced planar smooth clean.<br>(WEALD CLAY FORMATION) 4.91-5.0  | Medium strong   |  |
|   |   |   |  | 1  |   | 5.10   | +53.17   | × × × × × × × × × × × × × × × × × × ×  | Extremely weak grey SILISIONE with extremely closely spaced thin laminae   |   | · • • •  |
|   |   |   |  | Water flush:<br>4.60 - 6.10  | 100%<br>rec   |  |  | × × × × × × × × × × × × × × × × × × ×  | to closely spaced (50/130/450) planar smooth clean locally with light grey silt  |   | · • • • _  |
|   |   |   |  |  |   |  |  | $\begin{array}{c} \times \times \times \times \times \times \\ \times \times \times \times \times \times \\ \times \times \times \times \times $   | (WEALD CLAY FORMATION) 5.73-5.8  |   |  |
|   |   |   |  |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  | degrees<br>to 0.5mm  | lanar smooth with (up<br>) light grey clay infill.  |  |
| 60mm/42,58 for  | 50 0.00   |   |  |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  |  |   |  |
| refused   |   |   |  |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  | 6.45-6.8   | Becomes very weak.  | • • • • =,   |
| ID AR1601 Er 64%  |   |   |  |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  |  |   |  |
|   |   | 0 - 7.60 9<br>08mm) 9   | 02 50  | Water flush:<br>6.10 - 7.60  | 100%<br>rec   | (3.90)   |  | × × × × × × × × × × × × × × × × × × ×  |  |   |  |
|   |   |   | 450  |  |   | (0.00)   |  | × × × × × × × × × × × × × × × × × × ×  |  |   |  |
|   |   |   |  |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  | Gravel is  | angular fine to medium  | SP   |
|   |   |   |  |  |   |  |  | × × × × × × ×<br>× × × × × × ×<br>× × × × × ×  | weak gree  | / siltstone with  |  |
|   |   |   |  |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  | discolou   | ation on surfaces.  | 8.00   |
|   |   |   |  |  |   |  |  | *****  | degrees  | lanar rough with (up to   |  |
|   |   |   |  | Water flush:<br>7.60 - 9.10  | 100%<br>rec   |  |  | ******   | discolou   | ation.  |  |
|   |   |   |  |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  | degrees  | lanar rough with (up to   |  |
|   |   |   |  | 4  |   | 9.00   | +49.27   | ××××××<br>××××××<br>××××××   | 8 00 8 1   |   |  |
|   |   |   |  |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  | to 1mm) of light grey siltstone. Fracture set 1: Inclined 0-5 degrees medium to  | lanar rough with grey   |  |
|   |   | 1   | 100 300  |  |   |  |  | × × × × × ×<br>× × × × × ×<br>× × × × × ×  | veneer on surfaces. Fracture set 2: Inclined 80-90 degrees widely spaced (230/500/1020) planar smooth and rough with a light grey clay 8.16-8.2 degrees  | Fracture inclined 50  |  |
|   |   | 1   | 100 1 4000   |  |   |  |  | × × × × × × × × × × × × × × × × × × ×  | (130/630/1000) planar rough with light grey clay veneer on surfaces. 0.50mm  | grey clay infill.   |  |
|   |   |   |  | Water flush:<br>9.10 - 10.60   | 100%<br>rec   | (1.70)   | )  | × × × × × × ×<br>× × × × × × ×<br>× × × × × ×  | degrees  | lanar rough with (up to   |  |
|   |   |   |  |  |   |  |  |  | Hole continues on next sneet   |   |  |
|   | •   | ·   |  |  |   |  |  |  |  |   | Sea  |
|   |   |   |  |  |   |  |  |  | puis Duration (initis) 1001 No. Depth Remarks  |   | 563  |
|   |   |   |  |  |   |  |  |  |  |   |  |
|   |   |   |  |  |   |  |  |  | l  |   |  |
| Gatwick Northern Runw   | inway Project (NRP)   | ?)  |  |  |   |  |  | Status   | Scale 1:50   |   |  |
| D2001-22  |   |   |  |  |   |  |  |  |  |   | 400  |
| or VINCI Construction T/A   | A Taylor Woodrow  | /   |  |  |   |  |  |  | FINAL Printed 22 Jul 2022 14:12:49   | BH  | 108  |
|   | 0.0 ppmv (Test 5)<br>100 (25 for<br>60mm/42,58 for<br>70mm)<br>refused<br>ID AR1601 Er 64%<br>Gatwick Northern Ru<br>D2001-22 | 0.0 ppmv (Test 5)       4.3         100 (25 for       4.50       0.00         60mm/42,58 for       70mm)       6.1         1D AR1601 Er 64%       6.1       1         1       7.6       1         9.11       9.11       1         1       1       9.11         1       1       1         9.11       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       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       1       1         1       1       1 <tr< td=""><td>0.0 ppmv (Test 5)       4.30 - 4.60 (108mm)         100 (25 for 60mm/42,58 for 70mm) refused ID AR1601 Er 64%       4.50 0.00         ID AR1601 Er 64%       6.10 - 7.60 (108mm)         7.60 - 9.10 (108mm)       7.60 - 9.10 (108mm)         9.10 - 10.60 (108mm)       9.10 - 10.60 (108mm)</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       100       NA         100 (25 for       4.50       0.00       100       100         60mm/42,58 for       70mm)       100       100       100         1D AR1601 Er 64%       4.50       0.00       6.10 - 7.60       100         1D AR1601 Er 64%       7.60 - 9.10       100       100       100         92       50       200       450       100       100         91       100       100       100       100       100         92       50       200       450       100       100       100         100 (108mm)       9.10 - 10.60       100       100       100       100       100         9.10 - 10.60       100       100       100       100       100       100       100         9.10 - 10.60       100       100       100       100       100       100       100         9.10 - 10.60       100       100       100       100       100       100       100       100       100         9.10 - 10.60       100       100       100       100       100       100       100       100       100       100       <t< td=""><td>0.0 ppmv (Test 5)       4.30 - 4.60       100       NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>N</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       100<br/>(108mm)       NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>N</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       100<br/>0       NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>N</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       100       NA<br/>NA<br/>4.30 - 4.60       Water flush:<br/>100%       100%       4.70       +53.57         100 (25 for<br/>60mm/42.58 for<br/>772       4.60 - 6.10       100<br/>75       Water flush:<br/>4.60 - 6.10       100%       5.10       +53.17         100 (25 for<br/>60mm/42.58 for<br/>772       4.50       0.00       6.10 - 7.60       100       100%       100%       5.10       +53.17         100 (25 for<br/>60mm/42.58 for<br/>772       100       100       100       100%       100%       (3.90)       -50       4.60 - 6.10       100%       (3.90)         10 AR1601 Er 64%       4.50       0.00       6.10 - 7.60       100       100%       100%       (3.90)       -4.60       100%       -4.60       100%       -4.60       -4.60       -6.10       -7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       100%       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       <t< td=""><td>0.0 ppmv (Test 5)       4.30 - 4.60       100<br/>(100mm)       NA<br/>(100mm)       Water flush:<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       00 m MA<br/>H 4.30 - 4.60       100 m MA<br/>H 4.50 - 5.10       100 m M<br/>H 4.50 - 5.10       &lt;</td><td>0.0 prov (Tet 5)       1, 30 - 400       100       <td< td=""></td<></td></t<></td></t<></td></tr<> | 0.0 ppmv (Test 5)       4.30 - 4.60 (108mm)         100 (25 for 60mm/42,58 for 70mm) refused ID AR1601 Er 64%       4.50 0.00         ID AR1601 Er 64%       6.10 - 7.60 (108mm)         7.60 - 9.10 (108mm)       7.60 - 9.10 (108mm)         9.10 - 10.60 (108mm)       9.10 - 10.60 (108mm) | 0.0 ppmv (Test 5)       4.30 - 4.60       100       NA         100 (25 for       4.50       0.00       100       100         60mm/42,58 for       70mm)       100       100       100         1D AR1601 Er 64%       4.50       0.00       6.10 - 7.60       100         1D AR1601 Er 64%       7.60 - 9.10       100       100       100         92       50       200       450       100       100         91       100       100       100       100       100         92       50       200       450       100       100       100         100 (108mm)       9.10 - 10.60       100       100       100       100       100         9.10 - 10.60       100       100       100       100       100       100       100         9.10 - 10.60       100       100       100       100       100       100       100         9.10 - 10.60       100       100       100       100       100       100       100       100       100         9.10 - 10.60       100       100       100       100       100       100       100       100       100       100 <t< td=""><td>0.0 ppmv (Test 5)       4.30 - 4.60       100       NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>N</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       100<br/>(108mm)       NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>N</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       100<br/>0       NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>N</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       100       NA<br/>NA<br/>4.30 - 4.60       Water flush:<br/>100%       100%       4.70       +53.57         100 (25 for<br/>60mm/42.58 for<br/>772       4.60 - 6.10       100<br/>75       Water flush:<br/>4.60 - 6.10       100%       5.10       +53.17         100 (25 for<br/>60mm/42.58 for<br/>772       4.50       0.00       6.10 - 7.60       100       100%       100%       5.10       +53.17         100 (25 for<br/>60mm/42.58 for<br/>772       100       100       100       100%       100%       (3.90)       -50       4.60 - 6.10       100%       (3.90)         10 AR1601 Er 64%       4.50       0.00       6.10 - 7.60       100       100%       100%       (3.90)       -4.60       100%       -4.60       100%       -4.60       -4.60       -6.10       -7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       100%       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       <t< td=""><td>0.0 ppmv (Test 5)       4.30 - 4.60       100<br/>(100mm)       NA<br/>(100mm)       Water flush:<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       00 m MA<br/>H 4.30 - 4.60       100 m MA<br/>H 4.50 - 5.10       100 m M<br/>H 4.50 - 5.10       &lt;</td><td>0.0 prov (Tet 5)       1, 30 - 400       100       <td< td=""></td<></td></t<></td></t<> | 0.0 ppmv (Test 5)       4.30 - 4.60       100       NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>N | 0.0 ppmv (Test 5)       4.30 - 4.60       100<br>(108mm)       NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>N | 0.0 ppmv (Test 5)       4.30 - 4.60       100<br>0       NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>N | 0.0 ppmv (Test 5)       4.30 - 4.60       100       NA<br>NA<br>4.30 - 4.60       Water flush:<br>100%       100%       4.70       +53.57         100 (25 for<br>60mm/42.58 for<br>772       4.60 - 6.10       100<br>75       Water flush:<br>4.60 - 6.10       100%       5.10       +53.17         100 (25 for<br>60mm/42.58 for<br>772       4.50       0.00       6.10 - 7.60       100       100%       100%       5.10       +53.17         100 (25 for<br>60mm/42.58 for<br>772       100       100       100       100%       100%       (3.90)       -50       4.60 - 6.10       100%       (3.90)         10 AR1601 Er 64%       4.50       0.00       6.10 - 7.60       100       100%       100%       (3.90)       -4.60       100%       -4.60       100%       -4.60       -4.60       -6.10       -7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       100%       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       100%       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60       -6.10 - 7.60 <t< td=""><td>0.0 ppmv (Test 5)       4.30 - 4.60       100<br/>(100mm)       NA<br/>(100mm)       Water flush:<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA<br/>NA</td><td>0.0 ppmv (Test 5)       4.30 - 4.60       00 m MA<br/>H 4.30 - 4.60       100 m MA<br/>H 4.50 - 5.10       100 m M<br/>H 4.50 - 5.10       &lt;</td><td>0.0 prov (Tet 5)       1, 30 - 400       100       <td< td=""></td<></td></t<> | 0.0 ppmv (Test 5)       4.30 - 4.60       100<br>(100mm)       NA<br>(100mm)       Water flush:<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA  | 0.0 ppmv (Test 5)       4.30 - 4.60       00 m MA<br>H 4.30 - 4.60       100 m MA<br>H 4.50 - 5.10       100 m M<br>H 4.50 - 5.10       < | 0.0 prov (Tet 5)       1, 30 - 400       100 <td< td=""></td<> |



| С      | hecked         | Dep         | oth                      | Dates                                |                           | Metho                           |                          |                            | Equipment                | Rig Cre                  |                   | ger Logge<br>T 16 Mar    | 4                   | Hole       |       | sing                                  |                   | Depth Related Remarks   |   |             |              | SOCOTEC     |
|--------|----------------|-------------|--------------------------|--------------------------------------|---------------------------|---------------------------------|--------------------------|----------------------------|--------------------------|--------------------------|-------------------|--------------------------|---------------------|------------|-------|---------------------------------------|-------------------|---|---|-------------|--------------|-------------|
|        |                | 0.00 -      | 1.20 15 Ma<br>4.30 16 Ma | r 22 - 15 Mar 22<br>r 22 - 16 Mar 22 |                           | Hand dug insp<br>Cable percussi | pection pit.             |                            | Hand tools<br>Dando 3000 | BB/BR<br>BB/BR           |                   | T 16 Mar<br>T 16 Mar     | Depth               | Dia. (mm)  | Depth | Dia. (mm)                             | Depth             | Remarks   |   | Ground Lev  |              | 58.27 mOD   |
|        | CP             | 4.30 -      | 13.60 17 Ma              | r 22 - 10 Mar 22<br>r 22 - 17 Mar 22 | 2                         | Rotary core                     | drilling.                |                            | R70 Comacchio 2          |                          |                   | 05 Apr                   | 22 4.30<br>22 13.60 | 200<br>131 | 4.50  | 153                                   |                   |   |   | Coordinates |              | E 529385.77 |
| A      | proved         | 1           |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   | National Gr | id           | N 141691.46 |
|        | СР             |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              | System      |
|        | CP             |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | Date           | Time        |                          | Samples                              | s                         |                                 | Field Tes                | ts                         | Samp / Test              | Coring                   | TCR %<br>SCR %    | Water add                | d                   | Depth      | Level | Legend                                |                   | Strata Description  |   | el.         | Water        | Backfill    |
|        | Casing         | Water       | Depth                    | Type & No.                           | Records                   | Depth                           | Туре                     | Records                    | Casing Water             | Depth<br>(Diameter)      |                   | lf<br>im) Flush det      | ils                 | (Thicknes  |       |                                       |                   | Main  | Detail  | Chis        | Entry        |             |
| 10 -   | -              |             | 10.18 - 10.28            | D 26                                 |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       | × × × × × × × × × × × × × × × × × × × | Very weak g       | rey SILTSTONE with extremely closely spaced thin laminae (up  |   |             |              |             |
|        |                |             | 10.10 10.20              |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       | × × × × × × × × × × × × × × × × × × × | widely space      | ght grey siltstone. Fracture set 1: Inclined 0-5 degrees medium to<br>d (230/500/1020) planar smooth and rough with a light grey clay   | ,   |             |              |             |
| -      |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       | × × × × × × × × × × × × × × × × × × × |                   | urfaces. Fracture set 2: Inclined 80-90 degrees widely spaced 00) planar rough with light grey clay veneer on surfaces.   | 10.60-10.70 Fracture  | inclined 85 |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     | 10.70      | +47.5 | 7                                     | K (WEALD CL       | AY FORMATION)   | <ul> <li>degrees planar rough<br/>to 0.50mm) grey clay</li> </ul> | with a (up  |              |             |
| 11 -   | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       | spaced thin I     | rey MUDSTONE with closely spaced locally extremely closely<br>aminae (up to 1mm) of light grey siltstone. Fracture set 1:<br>0 degrees planar rough smooth clean closed locally with a grey |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          | 100               |                          |                     |            |       |                                       | clay veneer       | on surfaces.  | 11.10-11.27 Becomes   | weak.       |              |             |
|        |                |             | 11.27 - 11.55            | C 27                                 |                           |                                 |                          |                            |                          | 10.60 - 12.10<br>(108mm) | 100<br>100<br>100 | Water flue<br>10.60 - 12 |                     |            |       |                                       | (WEALD CL         | AY FORMATION)   |   |             |              |             |
|        | -              |             | 11.70 - 11.77            | D 28                                 |                           |                                 |                          |                            |                          | (                        |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             | 11.70 11.77              |                                      |                           |                                 |                          |                            |                          |                          | 13                | 80<br>800<br>620         |                     | (2.3       | 0)    |                                       |                   |   |   |             |              |             |
| 12 -   | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          | 16                | 520                      |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   | 12.19-12.45 Fracture<br>degrees planar smoot                      | h closed    |              |             |
| -      |                | ļ           |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   | with a grey clay venee<br>surface.                                | er on       |              |             |
|        | -              | ļ           |                          |                                      |                           |                                 |                          |                            |                          | 10.10                    | 100               |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 13 -   | -              |             |                          |                                      |                           |                                 |                          |                            |                          | 12.10 - 13.60<br>(108mm) | 100<br>100        | Water flue<br>12.10 - 13 |                     | 13.00      | +45.2 | 7                                     | 14/- 1 -          |   | 12 05 12 20 5   | inclined 90 |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          | *                        | I I               | 00                       |                     |            |       |                                       | g minin) or light | SILTSTONE with extremely closely spaced thin laminae (up to t grey siltstone.   | 13.05-13.30 Fracture<br>degrees undulating ro                     | ugh         |              |             |
|        | -<br>18 Mar 22 | 1700        |                          |                                      |                           |                                 |                          |                            |                          |                          | 6                 | 00                       |                     | (0.6       | 0)    | × × × × × × × × × × × × × × × × × × × |                   | AY FORMATION)   | closed with grey silt ve<br>surface.                              | eneer on    |              |             |
|        | 4.50           | 0.90        |                          |                                      |                           |                                 |                          |                            |                          |                          | ┝──┞─             | _                        | 1                   | 13.60      | +44.6 | 7                                     | ×                 | END OF EXPLORATORY HOLE   |   |             | +            | 13.60       |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 14 -   | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| -      | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 15 -   | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| -      | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 16 -   |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 47     | ]              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 17 -   | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| -      | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 18 -   | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 1      | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 19 -   | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        | _              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| · ·    | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 1      | -              |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| 20 -   | -              | ļ           |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            | _     |                                       |                   |   |   |             |              |             |
| Gener  | al Remarks     |             |                          |                                      |                           |                                 |                          |                            | •                        |                          |                   |                          |                     |            |       |                                       | Boring / Chisel   |   |   |             |              | 01-1        |
|        |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       | '                                     | Depths D          | uration (mins) Tool No. Depth   | Remarks   |             |              | Sealed      |
|        |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
|        |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |
| Notes  |                |             |                          |                                      |                           | _                               | iest                     | Ophidala M. C.             |                          |                          |                   |                          |                     |            |       | Status                                | 5                 | Coole 4.50  | Borehole  |             |              |             |
| For ex | planation of   | symbols a   | and abbreviation         | ns see Key to Ex                     | xploratory Hole Records   | . All                           | ject<br>iect No          | Gatwick Northe<br>D2001-22 | ern Runway Project (     | INKP)                    |                   |                          |                     |            |       |                                       | FIN               | Scale         1:50           AL         Printed         22 Jul 2022 14:12:49  |   | 6           | 3H108        |             |
| depths | and reduce     | u ievels in | i metres. Stratu         | m inickness giv                      | en in brackets in depth o |                                 | ject No.<br>ried out for |                            | ction T/A Taylor Woo     | drow                     |                   |                          |                     |            |       |                                       | FIIN/             |   | AGS   |             |              |             |
|        |                |             |                          |                                      |                           | Gai                             |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   | © Copyright SOCOTEC UK Limited  | AGO   |             | Sheet 2 of 2 |             |
|        |                |             |                          |                                      |                           |                                 |                          |                            |                          |                          |                   |                          |                     |            |       |                                       |                   |   |   |             |              |             |



| Ch               | necked              | Dep           |                             | Dates   |                                   | Meth                         |                           |  | Equipr                       |                     | g Crew               | Logger         |                                     |         | ole                | Cas          | •                |                           | Depth Related Remarks  |  | Ground Level       | 56.53 mOD                        |
|------------------|---------------------|---------------|-----------------------------|---|-----------------------------------|------------------------------|---------------------------|--|------------------------------|---------------------|----------------------|----------------|-------------------------------------|---------|--------------------|--------------|------------------|---------------------------|--|--|--------------------|----------------------------------|
|                  | CP                  |               | 4.50 21 Ma                  | ır 22 - 21 Mar 22<br>ır 22 - 22 Mar 22<br>ır 22 - 26 Mar 22 | 2                                 | Hand dug ins<br>Cable percus | ion drilling.             |  | Hand t<br>Dando<br>R70 Comac | 175 J               | T/DH<br>T/DH<br>R/PB | KD<br>KD<br>CD | 21 Mar 22<br>22 Mar 22<br>08 Apr 22 | 4.50    | Dia. (mm)<br>200   | 4.10         | Dia. (mm)<br>200 | Depth                     | Remarks  |  | Coordinates        | E 527906.73                      |
| Δn               | proved              | 4.50 - 2      | 25.00 22 1018               | ii 22 - 20 iviai 22   | 2                                 | Rotary core                  | e aniiing.                |  | R70 Comac                    | C1110 205 L         | R/PD                 | CD             | 06 Api 22                           | 25.00   | 150                | 25.00        | 150              |                           |  |  | National Grid      | N 142034.53                      |
|                  | CP                  |               |                             |   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  |  |                    | System                           |
|                  |                     | L             |                             |   |                                   | 1                            |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  |  |                    |                                  |
|                  | Date                | Time          | D (l)                       | Sample  |                                   |                              | Field 1                   |  | Samp / Te                    | Depth               |                      | D If           | Water added                         |         | Depth              | Level        | Legend           |                           | Strata Description   | <b>B</b> . (17)  | ਚ Water<br>ਦ Entry | Backfill                         |
| 0 —              | Casing<br>21 Mar 22 | Water<br>1930 | Depth<br>0.05 - 0.10        | Type & No.  | Records                           | Depth                        | Туре                      | Records                                  | Casing W                     | iter (Diamet        | er) %                | (mm)           | Flush details                       |         | (Thickness<br>(0.2 | ))           |                  | (MADE GRO                 |  | Detail   | 5                  | Flush cover                      |
| -                | 0.00                | Dry           | 0.10<br>0.20<br>0.25 - 0.35 | D 2<br>ES 3<br>B 4  |                                   | 0.20<br>0.30                 | PID<br>HV                 | 0.1 ppmv (Test 1)<br>p 182 to >188kPa, r |                              |                     |                      |                |                                     |         | 0.20               | +56.33<br>5) |                  | rootlets. Sar             | soft light brown slightly sandy slightly gravelly CLAY with frequent<br>id is fine. Gravel is subangular to subrounded fine to medium of<br>dired brick fragments. | /  |                    |                                  |
|                  |                     |               | 0.25 - 0.35<br>0.40<br>0.50 | D 5<br>ES 6   |                                   | 0.50                         | PID                       | 70kPa<br>0.1 ppmv (Test 2)               | -                            |                     |                      |                |                                     |         | 0.55               | +55.98       |                  | (MADE GRO                 |  |  |                    | 0.50                             |
| -                |                     |               | 0.60 - 0.80<br>0.80         | B7<br>D8  |                                   |                              |                           |  |                              |                     |                      |                |                                     |         | (0.8               | 5)           |                  | coarse white<br>(MADE GRC | e chalk.   | /  |                    |                                  |
| 1                |                     |               | 1.00 - 1.10<br>1.00         | B 10<br>ES 9  |                                   | 1.00<br>1.20 - 1.65          | PID<br>SPT S              | 0.0 ppmv (Test 3)<br>N=13 (4,4/4,3,3,3)  | 1.20 E                       | rv                  |                      |                |                                     |         | (0.0               | )            |                  |                           | ravelly SILT. Gravel is subangular to subrounded fine to coarse of   |  |                    | 1.00                             |
| -                |                     |               | 1.10                        | D 11<br>D 13  |                                   | 1.20                         | PID                       | ID BHDS06 Er 61%<br>0.0 ppmv (Test 4)    |                              | .,                  |                      |                |                                     |         | 1.40               | +55.13       |                  | Ū.                        | nottled grey slightly gravelly sandy CLAY. Sand is fine to medium.   | -  |                    |                                  |
| -                |                     |               | 1.20 - 1.65<br>1.20         | B 14<br>ES 12   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  | Gravel is sul             | bangular to subrounded fine to coarse of chalk and flint.<br>AY FORMATION)   |  |                    |                                  |
| 2 —              |                     |               | 1.70 - 2.45<br>1.70         | AMAL 46<br>D 15   | Combined samples.<br>B16 and B19. | 2.00 - 2.45                  | SPT S                     | N=18 (5,8/5,5,4,4)                       | 2.00 E                       | rv                  |                      |                |                                     |         | (1.2               | ))           |                  |                           |  |  |                    |                                  |
| -                |                     |               | 1.70 - 2.00<br>2.00         | B 16<br>D 18  |                                   | 2.00                         | PID                       | ID BHDS06 Er 61%<br>0.0 ppmv (Test 5)    |                              | -<br>-              |                      |                |                                     |         |                    |              |                  |                           |  |  |                    |                                  |
| -                | -                   |               | 2.00 - 2.45                 | B 19<br>ES 17   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         | 2.60               | 152.02       |                  |                           |  |  |                    |                                  |
|                  | -                   |               | 2.60<br>2.60 - 3.00         | D 20<br>B 21  |                                   |                              |                           |  |                              |                     |                      |                |                                     |         | 2.60               | +53.93       |                  | subangular t              | ft grey orangish brown slightly gravelly CLAY. Gravel is to subrounded fine to coarse of weak mudstone.  |  |                    |                                  |
| 3 —              |                     |               | 3.00                        | D 22<br>B 23  |                                   | 3.00 - 3.45                  | SPT S                     | N=36 (2,3/5,14,8,9)<br>ID BHDS06 Er 61%  | 3.00 E                       | ry                  |                      |                |                                     |         |                    |              |                  | (WEALD CL                 | AY FORMATION)  |  |                    |                                  |
| -                |                     |               | 3.00 - 3.45                 | 023   |                                   |                              |                           | 1013 שטפטוום טי                          |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  |  |                    |                                  |
|                  |                     |               | 3.50                        | ES 24   |                                   | 3.50                         | PID                       | 0.0 ppmv (Test 6)                        |                              |                     |                      |                |                                     |         | (1.9               | ))           |                  |                           |  |  |                    |                                  |
| -                |                     |               |                             |   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  |  |                    |                                  |
| 4 —              |                     |               | 4.00<br>4.00 - 4.45         | D 25<br>B 26  |                                   | 4.00 - 4.33                  | SPT S                     | 100 (6,16/23,47,30 for<br>25mm)          | 4.45 E                       | ry                  |                      |                |                                     |         |                    |              |                  |                           |  |  |                    |                                  |
| -                | 22 Mar 22<br>4.10   | 0230<br>Drv   |                             |   |                                   |                              |                           | ID BHDS06 Er 61%                         |                              |                     |                      |                |                                     |         |                    | 50.00        |                  |                           |  |  |                    |                                  |
|                  | 22 Mar 22<br>4.10   |               | 4.50                        | D 27  |                                   | 4.50 - 4.89                  | SPT S                     | 100 (6,19/27,32,32,9<br>for 15mm)        | 4.10 E                       | ry                  | 71                   | I NA           | 1                                   |         | 4.50               | +52.03       | <u>×</u> ×       |                           | ight grey mottled orangish brown silty CLAY.<br>AY FORMATION)  |  |                    |                                  |
| 5 —              | 4.10                | 2.00          |                             |   |                                   |                              |                           | ID BHDS06 Er 61%                         |                              | 4.50 - 5.<br>(101mm | 20 NA                | A NA           |                                     |         | (0.7)              | ))           | <u>×</u>         |                           |  | 5.00-5.20 AZCL.  |                    |                                  |
| 5 -              | -                   |               |                             |   |                                   | 5.20 - 5.36                  | SPT C                     | 100 (25,0 for 0mm for                    | 4.50 E                       | · ·                 | .,                   |                | 4                                   |         | 5.20               | +51.33       | <u>×_^x</u>      | Extremely w               | eak light grey MUDSTONE with very closely to closely spaced  | -  |                    |                                  |
| -                |                     |               |                             |   |                                   |                              |                           | 10mm/35,59,6 for<br>2mm)                 |                              |                     |                      |                |                                     |         |                    |              |                  | thin laminae              | of white siltstone and occasional partings (up to 50x30mm) of<br>ne. Fracture set 1; 0-15 degrees closely to medium spaced   |  |                    |                                  |
| -                |                     |               | 5.80                        | D 25a   |                                   |                              |                           | ID TH06 Er 67%                           |                              |                     | 100                  |                |                                     |         |                    |              |                  | (10/390/141               | 0) planar rough to smooth with occasional grey to dark grey clay<br>mm). Fracture set 2; 80-90 degrees planar smooth and rough                                     | 5.56-6.22 Brownish gr<br>becoming brownish re<br>5.77-6.03 Stiff to very | d.                 |                                  |
| 6 —              |                     |               | 0.00                        | 0 204   |                                   |                              |                           |  |                              | 5.20 - 6.<br>(101mm | 70 83                | 3              |                                     |         |                    |              |                  | clean occasi              | ionally with light grey clay infill (up to 1mm).<br>AY FORMATION)  | slightly gravelly silty cli<br>is angular, fine to coar                  | ay. Gravel         | • • • • _ • • • •<br>• • • - • • |
| -                |                     |               |                             |   |                                   |                              |                           |  |                              | (101111             | ., .,                |                | Water flush:                        | 100%    |                    |              |                  |                           |  | mudstone.<br>6.03-6.22 Extremely w                                       |                    |                                  |
| -                |                     |               | 6.22 - 6.62                 | C 26a   |                                   |                              |                           |  |                              |                     |                      |                | 4.50 - 8.20                         | rec     |                    |              |                  |                           |  | sandy mudstone. Sand<br>medium.  |                    |                                  |
| -                |                     |               |                             |   |                                   | 6.70 - 6.93                  | SPT C                     | 100 (25,0 for<br>0mm/37,63,0,0 for       | 4.50 E                       | ry                  |                      |                |                                     |         |                    |              |                  |                           |  | 6.50-6.54 Becomes br<br>grey.  |                    |                                  |
| 7 —              |                     |               |                             |   |                                   |                              |                           | 0mm)<br>ID TH06 Er 67%                   |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  | 6.65-6.70 Weak reddis<br>sandstone.                                      |                    |                                  |
| -                |                     |               |                             |   |                                   |                              |                           |  |                              | 6.70 - 8.           | 100<br>20 85         |                |                                     |         |                    |              |                  |                           |  | 6.85-7.07 NI. Grey clar<br>angular to subangular                         | fine to            |                                  |
| -                |                     |               | 7.55                        | D 27a   |                                   |                              |                           |  |                              | (101mm              |                      |                |                                     |         |                    |              |                  |                           |  | coarse gravel of muds<br>7.07-7.14 60 deg fract<br>rough with dark brown | ure planar         | SP 🚽                             |
| -                | 00 14- 00           | 00000         | 7.65 - 8.00                 | C 28  |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  | (<1mm).<br>7.07-7.18 Weak brown  |                    | 8 00                             |
| _                | 23 Mar 22<br>4.50   | 1.50          |                             |   |                                   |                              |                           |  |                              |                     |                      | _              |                                     |         |                    |              |                  |                           |  | mudstone with 70 deg<br>planar rough with light                          | fracture           | 8.00                             |
| -                | 23 Mar 22<br>4.50   | 2000<br>2.00  | 8.25 - 8.60                 | C 29  |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  | infill (<1mm).<br>7.14-7.25 70 deg fract                                 | ure planar         |                                  |
| -                |                     |               | 8.70                        | D 30  |                                   |                              |                           |  |                              |                     | 400                  |                |                                     |         |                    |              |                  |                           |  | smooth with light brow (<1mm).   | n silt infill      |                                  |
| 9 —              | -                   |               |                             |   |                                   |                              |                           |  |                              | 8.20 - 9.           | 70 100<br>97         | 0              |                                     |         |                    |              |                  |                           |  | 8.67-8.70 15 deg fract<br>rough with light grey cl                       | ay infill.         |                                  |
| -                |                     |               |                             |   |                                   |                              |                           |  |                              |                     | 57                   |                |                                     |         |                    |              |                  |                           |  | 8.93-9.29 Very weak li mudstone.   | gnt grey           |                                  |
| -                |                     |               |                             |   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  |  |                    |                                  |
|                  |                     |               |                             |   |                                   |                              |                           |  |                              |                     |                      | $\neg$         | Water flush:<br>8.20 - 11.20        | 90% rec |                    |              |                  |                           |  | 0.01.10.01.01.01   | e etiff eilte      |                                  |
| 10 —             |                     |               |                             |   |                                   |                              |                           |  |                              |                     |                      |                |                                     | I       |                    |              |                  |                           | Hole continues on next sheet   | 9.91-10.04 Stiff to very<br>clay.  | r suff slity       |                                  |
| Genera           | al Remarks          |               |                             |   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              | Hard B           | oring / Chisel            | lling Groundwater E  | ntries   |                    |                                  |
|                  |                     |               |                             |   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           | Duration (mins) Tool No. Depth   | Remarks  |                    | Sealed                           |
|                  |                     |               |                             |   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  |  |                    |                                  |
|                  |                     |               |                             |   |                                   |                              |                           |  |                              |                     |                      |                |                                     |         |                    |              |                  |                           |  |  |                    |                                  |
| Notes<br>For exp | planation of s      | symbols a     | nd abbreviatio              | ns see Key to E   | xploratory Hole Records           | s. All                       | oject                     | Gatwick Northe                           | ern Runway Pr                | oject (NRP)         |                      |                |                                     |         |                    |              | Status           |                           | Scale 1:50   | Borehole   | BUECO              |                                  |
| depths           | and reduced         | d levels in   | metres. Stratu              | im thickness giv  | ven in brackets in depth          | column. Pro                  | oject No.<br>rried out fo | D2001-22<br>or VINCI Construct           | ction T/A Taylo              | Woodrow             |                      |                |                                     |         |                    |              |                  | FIN                       |  | AGS  | BH702              | ·                                |
|                  |                     |               |                             |   |                                   |                              |                           |  |                              | -                   |                      |                |                                     |         |                    |              |                  |                           | © Copyright SOCOTEC UK Limited   | 100  | Sheet 1 of 3       |                                  |



| Checked  |                          | -1.20 21 Ma                         | <b>Dates</b><br>r 22 - 21 Mar 22<br>r 22 - 22 Mar 22 |   | Metho<br>Hand dug ins<br>Cable percusi | ection pit.                      |          | Equipment<br>Hand tools<br>Dando 175 | Rig Cre<br>JT/DF<br>JT/DF     | 1 P                          | gger<br>KD<br>KD  | Logged<br>21 Mar 22<br>22 Mar 22 |               | Dia. (mm)           | Ca<br>Depth<br>4.10 | sing<br>Dia. (mm) | Depth  | Remarks  | Depth R  | Related Rema   | rks   |   | Ground   |                      | SOCOTEC<br>56.53 mOD       |
|--|--------------------------|-------------------------------------|--|---|--|----------------------------------|----------|--------------------------------------|-------------------------------|------------------------------|-------------------|----------------------------------|---------------|---------------------|---------------------|-------------------|--|--|--|--|---|---|--|----------------------|----------------------------|
| CP<br>Approved                                   |                          |                                     | r 22 - 26 Mar 22                                     |   | Rotary core                            |                                  |          | R70 Comacchio                        |                               |                              | CD                | 08 Apr 22                        | 4.50<br>25.00 | 200<br>150          | 25.00               | 200<br>150        |  |  |  |  |   |   | Coordin<br>National  |                      | E 527906.73<br>N 142034.53 |
| CP   |                          |                                     |  |   |  |                                  |          |                                      |                               |                              |                   |                                  |               |                     |                     |                   |  |  |  |  |   |   |  |                      | System                     |
| Date<br>Casing                                   | Time<br>Water            | Depth                               | Samples<br>Type & No.                                | Records                                       | Depth                                  | Field Tests<br>Type              | Records  | Samp / Test<br>Casing Water          | Coring<br>Depth<br>(Diameter) | TCR %<br>SCR %<br>RQD<br>% ( | If                | Water added<br>Flush details     |               | Depth<br>(Thickness | Level               | Legend            |  |  | Main   | Strata Descr   | ription   | De  | ail  | -i<br>Water<br>Entry | Backfill                   |
|  |                          | 10.55                               | D 31   |   |  |                                  |          |                                      | 9.70 - 11.20                  | 100<br>91<br>81              |                   |                                  |               | (10.                | -                   |                   | thin laminae<br>white siltstor<br>(10/390/1410<br>infill (up to 1)<br>clean occasi | of white siltstor<br>e. Fracture set<br>)) planar rough<br>nm). Fracture s | UDSTONE with ve<br>the and occasional p<br>1; 0-15 degrees clo<br>to smooth with occ-<br>tet 2; 80-90 degrees<br>grey clay infill (up t    | partings (up to<br>osely to mediu<br>casional grey to<br>s planar smoo | 50x30mm) of<br>im spaced<br>o dark grey clay                      |   |  |                      |                            |
| 12 —   |                          | 11.70                               | D 32   |   |  |                                  |          |                                      | 11.20 - 12.70                 | 100<br>100                   |                   | Water flush:                     | 85% rec       |                     |                     |                   |  |  |  |  |   | 11.45-11.51 Silty<br>11.82-11.87 Very<br>clay. Gravel is a  | stiff gravelly<br>gular to   |                      |                            |
| 13 -   |                          | 12.02 - 12.32                       | C 33   |   |  |                                  |          |                                      |                               |                              | NI<br>230<br>1030 | 11.20 - 12.70                    |               |                     |                     |                   |  |  |  |  |   | subangular fine<br>mudstone.<br>12.32-12.38 Ver<br>clay. Gravel is a<br>coarse of flint.<br>12.50-12.88 We<br>mudstone.<br>12.88-13.16 NI.<br>clayey angular to           | r stiff gravelly<br>gular fine to<br>k dark grey<br>Dark grey<br>subangular                        |                      |                            |
| 14   |                          | 13.60                               | D 34   |   |  |                                  |          |                                      | 12.70 - 14.20                 | 100<br>70<br>53              |                   |                                  |               |                     |                     |                   |  |  |  |  |   | fine to coarse gr<br>mudstone and tr<br>mudstone.<br>13.16-13.50 Firm<br>grey gravelly cla<br>subangular fine<br>mudstone.<br>13.73-13.76 Firm<br>13.76-13.81 70 (        | inly laminated<br>to stiff dark<br>./. Gravel is<br>o coarse of<br>grey silty clay.<br>eg fracture |                      |                            |
| 15 —<br>24 Mar 22                                |                          | 14.65                               | D 35   |   |  |                                  |          |                                      | 14.20 - 15.70                 |                              | NA<br>NA          |                                  |               | 15.25<br>(0.4       | +41.2               | 8                 | ASSUMED 2  | ONE OF COR   | E LOSS.  |  |   | planar smooth w<br>infill.<br>13.95-14.08 Ver<br>mudstone.<br>14.25-14.30 45 (<br>planar rough wit<br>(<1mm).<br>14.78-14.92 Ang<br>coarse gravel of<br>15.22-15.25 Stiff | v weak grey<br>leg fracture<br>a grey clay infill<br>ular medium to<br>mudstone.                   |                      |                            |
| 16 - 4.50<br>- 24 Mar 22<br>4.50<br>- 4.50       | 2.00<br>0800<br>3.50     | 16.45                               | D 36   |   |  |                                  |          |                                      | 15.70 - 17.20                 | 100                          | NA                |                                  |               | 15.70               | +40.8               | 3                 | thin laminae<br>of white silts<br>(30/250/1130<br>grey silt infill<br>(200/390/210 | of white to light<br>one. Fracture s<br>) planar smoot<br>(up to 1mm). F   | lark grey MUDSTO<br>grey siltstone and<br>tet 1; 0-10 degrees<br>h and rough clean v<br>racture set 2; 60-75<br>y undulating clean i<br>N) | frequent partin<br>closely to me<br>with occasiona<br>5 degrees me     | ngs (up to 2mm)<br>dium spaced<br>al light grey to<br>dium spaced | 16.11-16.18 Gre<br>subangular fine<br>of mudstone.<br>16.31-16.37 Gre<br>subangular fine<br>of mudstone.<br>16.37-16.44 40<br>planar partly pol                           | o coarse gravel<br>y clayey<br>o coarse gravel<br>leg fracture<br>shed and clean.                  |                      |                            |
| 18 -   |                          | 17.47                               | D 37   |   |  |                                  |          |                                      | 17.20 - 18.70                 | 97<br>85<br>68               | NI<br>130<br>540  |                                  |               | (4.5                | D)                  |                   |  |  |  |  |   | 16.56-16.63 Ang<br>subangular fine<br>of mudstone.<br>16.89-16.94 Stiff   | o coarse gravel  |                      |                            |
| 19 —   |                          | 18.17 - 18.45                       | C 38   |   |  |                                  |          |                                      |                               |                              |                   | Water flush:<br>12.70 - 25.00    | 80% rec       |                     |                     |                   |  |  |  |  |   | 18.54-18.60 45 d<br>planar rough wit<br>infill (up to 1mm<br>18.57-18.65 45 d<br>planar rough wit   | n dark grey clay<br>leg fracture<br>n light grey silt  |                      |                            |
| 20 —   |                          | 19.30                               | D 40   |   |  |                                  |          |                                      | 18.70 - 20.20                 | 93<br>69<br>59               |                   |                                  |               |                     |                     |                   |  |  | Hole continues on next st  | heet   |   | infill (up to 1mm)<br>18.65-18.70 AZ(<br>19.48-19.85 Firm<br>gravelly clay. Gr<br>to subangular, fii<br>mudstone.<br>19.85-20.02 Ext                                      | L.<br>to stiff very<br>wel is angular<br>le to coarse of   |                      |                            |
| General Remarks                                  | :                        | <u> </u>                            |  |   | 1                                      |                                  |          |                                      |                               | <u>   </u>                   |                   |                                  |               |                     |                     |                   | Boring / Chisel<br>Depths D  | ling<br>uration (mins)   | Tool   | N  | Groundwater<br>No. Depth  |   |  |                      | Sealed                     |
| Notes<br>For explanation of<br>depths and reduce | symbols :<br>ed levels i | and abbreviatio<br>n metres. Stratu | ns see Key to Exp<br>m thickness given               | loratory Hole Records<br>in brackets in depth | column. Pro                            | ject<br>ject No.<br>ried out for | D2001-22 | ern Runway Project                   |                               |                              |                   |                                  |               |                     |                     | Status            | s<br>FIN/  | AL   |  | 1:50<br>22 Jul 2022 <sup>-</sup><br>right SOCOTE                       |   | Boreho<br>AGS   | le   | BH70<br>Sheet 2 of 3 |                            |



| Checked                                 | De                       | pth                             | Dates                                   |  | Metho                        | od            |                | Equipment                    | Rig Cre             | w Loo           | ger Log           | ged                        | Hole                  | Cas           | ing        |                                | Depth Related Remarks  |  |                    |              | SOCOTEC     |
|---|--------------------------|---------------------------------|---|--|------------------------------|---------------|----------------|------------------------------|---------------------|-----------------|-------------------|----------------------------|-----------------------|---------------|------------|--------------------------------|--|--|--------------------|--------------|-------------|
|   | 0.00                     | - 1.20 21 Ma                    | r 22 - 21 Mar 22                        |  | Hand dug insp                | pection pit.  |                | Hand tools                   | JT/DH               | K               | D 21 N            | ar 22 D                    | epth Dia. (mm)        | Depth         | Dia. (mm)  | Depth                          | Remarks  |  | Ground Lev         |              | 56.53 mOD   |
| СР                                      | 1.20 -<br>4.50 -         | - 4.50   21 Ma<br>25.00   22 Ma | ır 22 - 22 Mar 22<br>ır 22 - 26 Mar 22  |  | Cable percusi<br>Rotary core |               |                | Dando 175<br>R70 Comacchio 2 | JT/DH<br>205 LR/PB  |                 | D 22 N            | ar 22 2<br>pr 22 2         | 4.50 200<br>25.00 150 | 4.10<br>25.00 | 200<br>150 |                                |  |  | Coordinates        | 5            | E 527906.73 |
|   | -                        |                                 |   |  |                              |               |                |                              |                     |                 |                   | <sup></sup>   <sup>2</sup> | 100                   | 20.00         | 150        |                                |  |  | National Gr        | id           | N 142034.53 |
| Approved                                |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              | System      |
| СР                                      | 1                        |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              | -           |
|   | <u> </u>                 |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    | · · · ·      |             |
| Date                                    | Time                     |                                 | Samples                                 |  |                              | Field Tests   |                | Samp / Test                  | Coring              | TCR %<br>SCR %  | Water a           | dded                       | Depth                 | Level         | Legend     |                                | Strata Description   |  |                    | Water        | Backfill    |
| Casing                                  | Water                    | Depth                           | Type & No.                              | Records  | Depth                        | Туре          | Records        | Casing Water                 | Depth<br>(Diameter) | DOD             | lf<br>mm) Flush o | letails                    | (Thickness            |               | Legend     |                                | Main   | Detail   | chis               | Entry        | Buokini     |
|   |                          | Sopul                           | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |  | Dopui                        | -90-          |                | - acing mater                | (Brameter)          |                 | , 1 103110        |                            | (Thickness            | -             |            | Very weak to                   | weak grey to dark grey MUDSTONE with very closely spaced   | 20.10-20.20 AZCL.                                  | 0                  | +            |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            | 20.20                 | +36.33        | 3          | thin laminae                   | of white to light grey siltstone and frequent partings (up to 2mm)   | 20.20-20.31 85 deg fra                             |                    |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            | of white silts<br>(30/250/1130 | tone. Fracture set 1; 0-10 degrees closely to medium spaced<br>0) planar smooth and rough clean with occasional light grey to        | planar smooth and cle                              | ean.               |              |             |
| -                                       |                          | 20.55                           | D 41                                    |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            | grey silt infill               | (up to 1mm). Fracture set 2; 60-75 degrees medium spaced   |  |                    |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     | 100             |                   |                            |                       |               |            | (200/390/210<br>(WEALD CL      | 60) planar locally undulating clean and silt infill (up to 1mm).<br>AY FORMATION)  |  |                    |              |             |
| 21 —                                    |                          |                                 |   |  |                              |               |                |                              | 20.20 - 21.70       | 94              |                   |                            |                       |               |            | Weak to mod                    | derately weak dark grey to grey fractured MUDSTONE. Fracture   | 20.92-21.03 Firm grey<br>21.03-21.27 Extremel      | y clay.            |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     | 67              |                   |                            |                       |               |            | clean with ra                  | egrees closely spaced (20/180/530) planar smooth and rough<br>re dark grey clay and light grey silt infill (up to 1mm). Fracture set |  | y weak.            |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            | 2; 80-90 deg                   | rees planar smooth and rough clean with locally dark grey silt   |  |                    |              |             |
| 25 Mar 22                               | 0600                     |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            | infill (up to 1<br>(WEALD CL   | mm).<br>AY FORMATION)  |  |                    |              |             |
| 4.50<br>- 25 Mar 22                     | 2.50<br>2000             |                                 |   |  |                              |               |                |                              |                     | ⊢ – –           |                   |                            |                       |               |            |                                | · ····································   | 21.76-21.80 20 deg fra                             | acture             |              |             |
| 4 50                                    | 2000                     |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | planar rough with pos                              | sible grey         |              |             |
| 22 - 4.00                               |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | clay infill (<1mm).<br>21.92-21.96 20 deg fra      | acture             |              |             |
| 1                                       |                          |                                 |   |  |                              |               |                |                              |                     | 100             |                   |                            |                       |               |            |                                |  | planar rough with grey                             |                    |              |             |
|   |                          | 22.40                           | D 42                                    |  |                              |               |                |                              | 21.70 - 23.20       | 84              | NI                |                            |                       |               |            |                                |  | (<1mm).<br>21.97-22.01 20 deg fra                  | acture             |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     | 53              | 120<br>325        |                            | (4.8                  | D)            |            |                                |  | planar rough and clea                              | ın.                |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | 22.05-22.13 Stiff to ve<br>dark brownish grey cla  |                    |              |             |
| 23 —                                    |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | 22.29-22.35 Stiff to ve                            | ery stiff          |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     | $\vdash$        |                   |                            |                       |               |            |                                |  | dark grey to grey clay.<br>22.51-22.56 20 deg fra  | acture             |              |             |
| 1                                       |                          | 23.40                           | D 43                                    |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | planar rough and clea                              | ın.                |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | 22.61-22.69 50 deg fra<br>planar rough with light  | acture             |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     | 100             |                   |                            |                       |               |            |                                |  | infill (<0.5mm).                                   |                    |              |             |
| 24 —                                    |                          |                                 |   |  |                              |               |                |                              | 23.20 - 24.70       | 71              |                   |                            |                       |               |            |                                |  | 22.71-22.76 20 deg fr                              |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     | 59              |                   |                            |                       |               |            |                                |  | planar smooth and cle<br>23.34-23.39 Very stiff    | grey clay.         |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | 23.47-23.61 60 deg fra                             | acture             |              |             |
| _                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | planar rough and clea<br>23.63-23.70 45 deg fra    |                    |              |             |
| 1 1                                     |                          |                                 |   |  |                              |               |                |                              |                     | 100             |                   |                            |                       |               |            |                                |  | planar rough and clea                              | in.                |              |             |
| 26 Mar 22<br>25 25.00                   | 0600<br>Dry              |                                 |   |  |                              |               |                |                              | 24.70 - 25.00       | 100<br>NA<br>NA |                   |                            |                       |               |            |                                |  | 23.70-24.01 Firm to st<br>gravelly clay. Gravel is | tiff slightly<br>s |              |             |
| 25                                      | y                        |                                 |   |  |                              |               |                |                              |                     | INM.            |                   |                            | 25.00                 | +31.53        | 3          |                                | END OF EXPLORATORY HOLE  | subangular, fine to coa                            | arse of            | +            | 25.00       |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | mudstone.<br>24.08-24.15 Dark grey                 | v clavev           |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | angular to subangular                              | fine to            |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | coarse gravel of muds<br>24.19-24.35 60 deg fra    | stone.             |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | planar smooth with lig                             |                    |              |             |
| 26 —                                    |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  | infill (<0.5mm).                                   |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
| 27 —                                    |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
| <u></u>                                 |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
| 28 —                                    |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
| -                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
| 29 —                                    |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
| 30 —                                    |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               | <u> </u>   |                                | • · · ·  |  |                    |              |             |
| General Remarks                         |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            | Boring / Chisel<br>Depths D    | ling Groundwater B<br>Juration (mins) Tool No. Depth   |  |                    |              | Sealed      |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               | <b> </b> " | repuis D                       |  | Nomaina  |                    |              | Sealed      |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                | I  |  |                    |              |             |
| 1                                       |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               | -          |                                |  | I  |                    |              |             |
| Notes                                   |                          |                                 |   |  | Pro                          | oject         | Gatwick Northe | rn Runway Project (          | (NRP)               |                 |                   |                            |                       |               | Status     | •                              | Scale 1:50   | Borehole   |                    |              |             |
| For explanation of<br>depths and reduce | symbols :<br>d levels in | and abbreviatio                 | ns see Key to Exp                       | ploratory Hole Records<br>n in brackets in depth | S. All                       | ject No.      | D2001-22       |                              |                     |                 |                   |                            |                       |               |            | FIN/                           |  |  | F                  | 3H702        |             |
|   |                          |                                 |   |  |                              | rried out for |                | tion T/A Taylor Woo          | drow                |                 |                   |                            |                       |               |            |                                |  | AGS  |                    |              |             |
|   |                          |                                 |   |  | Jai                          |               |                |                              |                     |                 |                   |                            |                       |               |            |                                | © Copyright SOCOTEC UK Limited   | AUU  |                    | Sheet 3 of 3 |             |
|   |                          |                                 |   |  |                              |               |                |                              |                     |                 |                   |                            |                       |               |            |                                |  |  |                    |              |             |



| Checked                | Dep               |                      | Dates                                |                        | Meth                        |             |                                 | Equipment                   |                        |              |                  |               | ole                 | Cas           |                  |                                | Depth Related Rel   | narks                               |  |                            |                | SOCOTEC                               |
|------------------------|-------------------|----------------------|--------------------------------------|------------------------|-----------------------------|-------------|---------------------------------|-----------------------------|------------------------|--------------|------------------|---------------|---------------------|---------------|------------------|--------------------------------|---|-------------------------------------|--|----------------------------|----------------|---------------------------------------|
|                        |                   |                      | r 22 - 18 Mar 22<br>r 22 - 24 Mar 22 |                        | Hand dug ins<br>Rotary core |             | -                               | Dando 3000<br>R67 Comacchic |                        |              |                  | Depth<br>1.20 | Dia. (mm)<br>200    | Depth<br>1.20 | Dia. (mm)<br>200 | Depth                          | Remarks   |                                     |  | Ground Lev                 |                | 56.54 mOD                             |
| CP                     |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  | 25.00         | 150                 | 17.20         | 150              |                                |   |                                     |  | Coordinates<br>National Gr |                | E 527924.77<br>N 141938.00            |
| Approved               |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     |  | National Gr                | ia             | N 141938.00<br>System                 |
| CP                     |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     |  |                            |                | System                                |
| Data                   | Time              |                      | Samples                              |                        |                             | Field       | <b>T</b> 4-                     | Samp / Test                 | Coring                 | TCR %        | Water added      |               |                     |               |                  |                                | Strata De   |                                     |  |                            |                |                                       |
| Date                   |                   | Donth                | Type & No.                           | Pagarda                | Donth                       |             | Records                         |                             | Depth                  | SCR %<br>RQD | f                |               | Depth<br>(Thickness | Level         | Legend           |                                | Main  | scription                           | Detail   | hisel                      | Water<br>Entry | Backfill                              |
| 0 - 17 Mar 22          | <b>Water</b> 2000 | Depth<br>0.00 - 0.30 | B 1                                  | Records                | Depth                       | Туре        | Records                         | Casing Water                | (Diameter)             | % (m         | m) Flush details |               | (Thickness          | 6)            |                  | (TOPSOIL) G                    | Grass over soft brown slightly sandy slightly g   | ravelly CLAY with                   | Detail   | 0                          | )              | Flush Cover                           |
| 0.00                   | Dry               | 0.30                 | ES 2                                 |                        |                             |             |                                 |                             |                        |              |                  |               | (0.55               | 5)            |                  |                                | ootlets. Sand is fine to coarse. Gravel is suba<br>t, brick and chalk.                        | ngular fine to                      |  |                            |                |                                       |
| -                      |                   | 0.30                 | D 3                                  |                        |                             |             |                                 |                             |                        |              |                  |               | 0.55                | +55.99        |                  |                                |   |                                     |  |                            |                | 0.40                                  |
| ]                      |                   | 0.80 - 1.20          | В4                                   |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  | Firm to stiff ye               | DE GROUND)<br>ellowish brown mottled grey slightly sandy sli                                  | ghtly gravelly CLAY                 |  |                            |                |                                       |
| 1 - 18 Mar 22          | 0400              | 1.00                 | ES 5                                 |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                | nal pockets (up to 5x10x5mm) of black silt. Sa<br>el is subangular to subrounded of flint.    | and is medium to                    |  |                            |                | 1.00                                  |
| 0.00                   | Damp              | 1.20 - 1.65          | D 7                                  |                        | 1.20 - 1.65                 | SPT S       |                                 | Dry                         |                        |              |                  |               |                     |               |                  |                                | -   |                                     |  |                            |                |                                       |
| - 18 Mar 22<br>_ 0.00  | 2100<br>Damp      | 1.20<br>1.50 - 1.80  | D 6<br>B 8                           |                        |                             |             | ID TH52 Er 53%                  |                             |                        |              |                  |               | (1.90               | n)            |                  | X                              |   |                                     |  |                            |                |                                       |
| -                      |                   | 1.50 - 1.60          |                                      |                        |                             |             |                                 |                             |                        |              |                  |               | (1.50               | 5)            |                  | ×                              |   |                                     |  |                            |                |                                       |
| -                      |                   | 1.90                 | D 9                                  |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     |  |                            |                |                                       |
| 2                      |                   | 2.00 - 2.45<br>2.00  | UT 11<br>ES 10                       | 100% rec               |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  | X                              |   |                                     |  |                            |                |                                       |
|                        |                   | 2.00                 | 2010                                 |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     |  |                            |                |                                       |
|                        |                   | 2.50<br>2.50 - 3.00  | D 12<br>B 13                         |                        |                             |             |                                 |                             |                        |              |                  |               | 2.45                | +54.09        |                  |                                | eak brown mottled reddish brown MUDSTON   |                                     |  |                            |                |                                       |
| -                      |                   | 2.00 - 3.00          | 610                                  |                        |                             |             |                                 |                             |                        |              |                  |               | (0                  | - )           |                  | heavy orangis                  | osely spaced, randomly orientated planar roug<br>sh brown and reddish brown staining on surfa | aces.                               |  |                            |                |                                       |
| -                      |                   | 3.00 - 3.37          | D 15                                 |                        | 3.00 - 3.34                 | SPT S       | 50 (7,11/15,19,16 for           | 3.00 Dry                    |                        |              |                  |               | (0.85               | 5)            |                  | (WEALD CLA                     | AY FORMATION)   |                                     |  |                            |                | • • • • • - •                         |
| - 19 Mar 22<br>3.00    | 0010<br>Dry       | 3.00                 | ES 14                                |                        |                             |             | 40mm)<br>ID TH52 Er 53%         |                             |                        |              |                  |               | 3.30                | +53.24        |                  |                                |   |                                     | 3.30-3.45 Stiff to firm I                          | ight                       |                | · • • • • •                           |
| - 21 Mar 22<br>0.00    | 0146<br>1.02      |                      |                                      |                        |                             |             |                                 |                             | 3.30 - 3.70            | 100<br>NA    |                  |               | (0.40               |               |                  | Firm grey mot                  | ottled orangish brown reddish brown CLAY.<br>AY FORMATION)                                    |                                     | orangish brown mottle                              |                            |                |                                       |
| -                      | 1.02              |                      |                                      |                        |                             |             |                                 |                             | (101mm)                | NA           | _                |               | 3.70                | +52.84        |                  |                                | eak light grey MUDSTONE. Fracture set 1; 0-   | 15 degrees modium                   | grey clay.   |                            |                |                                       |
| _                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  | to widely space                | ced planar rough closed occasionally with gr  | ey clay infill (up to               |  |                            |                |                                       |
| _                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  | brown.                         | re set 2; 90 degrees planar rough closed cle  | an rarely stained                   |  |                            |                | · · · · · · · · · · · · · · · · · · · |
| -                      |                   | 4.30                 | D 16                                 |                        |                             |             |                                 |                             | 0.70 5.00              | 100          |                  |               |                     |               |                  | (WEALD CLA                     | AY FORMATION)   |                                     |  |                            |                |                                       |
|                        |                   | 4.45 - 4.80          | C 17                                 |                        |                             |             |                                 |                             | 3.70 - 5.20<br>(101mm) | 100<br>100   |                  |               |                     |               |                  |                                |   |                                     |  |                            |                | SP 🗖                                  |
| ]                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        | 2            | 0                |               |                     |               |                  |                                |   |                                     | 4.80 Becoming grey.<br>4.80-5.00 Mottled dark      |                            |                |                                       |
| 22 Mar 22              |                   |                      |                                      |                        |                             |             |                                 |                             |                        | 20           | 00               |               | (2.55               | 5)            |                  |                                |   |                                     | 4.80-5.00 Mottled dark<br>brown.                   | < greyish                  |                | 5.00                                  |
| 5.20<br>22 Mar 22      | 1.90<br>2000      | 5.30                 | D 18                                 |                        | 5.20 - 5.43                 | SPT C       | 100 (18,7 for<br>15mm/31,69 for | 5.20 1.25                   |                        |              |                  |               |                     |               |                  |                                |   |                                     |  |                            |                |                                       |
| 5.20                   | 1.90              | 5.55                 |                                      |                        |                             |             | 65mm)                           |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     | 5.37-5.79 Becoming b<br>red.                       | rownish                    |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             | ID th72 Er 64%                  |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     |  |                            |                |                                       |
| ]                      |                   | 5.83 - 6.08          | C 19                                 |                        |                             |             |                                 |                             | 5.20 - 6.70            | 100<br>91    |                  |               |                     |               |                  |                                |   |                                     |  |                            |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             |                                 |                             | (101mm)                | 67           |                  |               | 6.25                | +50.29        |                  |                                |   |                                     |  |                            |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               | 0.20                | +50.29        |                  | Fractures are                  | lerately weak reddish brown to dark reddish b<br>0 degrees very closely to closely spaced (40 | )/200/380) planar                   | 6.31-6.38 40 degree fi<br>planar smooth with rea   | ddish                      |                |                                       |
|                        |                   |                      |                                      |                        | 6.70 - 6.86                 | SPT C       | 100 (25 for                     | 6.70 2.05                   |                        | 16           | 50               |               | (0.75               | 5)            |                  | smooth or rou                  | ugh with reddish brown clay infill (up to 1mm)<br>AY FORMATION)                               |                                     | brown clay infill (less t<br>3mm).                 | han                        |                |                                       |
| -                      |                   |                      |                                      |                        | 0.70 - 0.00                 |             | 70mm/72,28 for                  | 0.70 2.05                   |                        | 30           | 00               |               |                     |               |                  | (TEALD OLA                     |   |                                     | 6.33-6.40 40 degree fi                             | racture                    |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             | 15mm)<br>ID th72 Er 64%         |                             |                        |              | $\neg$           |               | 7.00                | +49.54        |                  |                                | lerately weak grey to dark grey fractured MUI   |                                     | planar rough with redo<br>clay infill (up to 3mm). |                            |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        | 100          |                  |               |                     |               |                  | with light grey                | rees closely spaced (10/160/380) planar smc<br>y clay infill (up to 3mm).                     | otn rough clean                     | 6.43-6.51 Recovered<br>reddish brown very gr       | avelly                     |                |                                       |
| -                      |                   | 7.40 - 7.67          | C 20                                 |                        |                             |             |                                 |                             | 6.70 - 8.20<br>(101mm) | 100<br>70    |                  |               |                     |               |                  | (WEALD ČLÁ                     | AY FORMATION)   |                                     | CLAY. Gravel is angul<br>angular fine to coarse    | ar to sub                  |                |                                       |
| -                      |                   | 7.70                 | D 21                                 |                        |                             |             |                                 |                             | (                      |              |                  |               |                     |               |                  |                                |   |                                     | mudstone.<br>6.68-6.72 90 degree p                 |                            |                |                                       |
| 1                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     | rough clean.                                       |                            |                |                                       |
| 1                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        | 16           | 01               |               | (2.40               | D)            |                  |                                |   |                                     | 6.68-6.84 Medium stro<br>reddish brown sandsto     | one.                       |                |                                       |
| ]                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        | 38           | 80               |               |                     |               |                  |                                |   |                                     | 7.17-7.21 90 degree fi<br>planar smooth clean.     | racture                    |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     | 8.55-8.63 Extremely c<br>very closely spaced th    |                            |                |                                       |
| -                      |                   | 8.80                 | D 22                                 |                        |                             |             |                                 |                             | 8.20 - 9.70            | 100<br>100   |                  |               |                     |               |                  |                                |   |                                     | of light grey siltstone.                           | iuniniuc                   |                |                                       |
| -                      |                   | 8.90 - 9.18          | C 23                                 |                        |                             |             |                                 |                             | (101mm)                | 82           |                  |               |                     |               |                  |                                |   |                                     |  |                            |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               | 9.40                | +47.14        |                  |                                |   |                                     |  |                            |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               | 010                 | . 47.14       |                  | Very weak to<br>closed space   | weak grey to dark grey fractured MUDSTON<br>thin to thick laminae of light grey siltstone.    | E with extremely<br>Fractures are 0 |  |                            |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                | ely spaced (30/190/620) planar smooth or rou  |                                     |  |                            |                |                                       |
| -                      |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  | 1             |                     |               |                  |                                | Hole continues on next sheet  |                                     |  |                            |                |                                       |
|                        |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     |  |                            |                |                                       |
| eral Remarks           |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  | Boring / Chiselli<br>Depths Du | ling<br>uration (mins) Tool   | Groundwater En<br>No. Depth R       |  |                            |                | Sea                                   |
|                        |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                | . ,   |                                     |  |                            |                |                                       |
|                        |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                |   |                                     |  |                            |                |                                       |
|                        |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               | 04-1             |                                |   |                                     | In sectors   |                            |                |                                       |
| es<br>explanation of s | symbols           | and abbreviation     | ns see Kev to Evo                    | oloratory Hole Record  | rds. All                    | oject       | Gatwick Northe                  | ern Runway Projec           | t (NRP)                |              |                  |               |                     |               | Status           |                                | Scale 1:50  |                                     | Borehole   |                            |                |                                       |
|                        |                   |                      |                                      | n in brackets in depth | h column. Pro               | oject No.   | D2001-22                        |                             |                        |              |                  |               |                     |               |                  | FINA                           | AL Printed 22 Jul 202   | 22 14:12:51                         | AGS  | E                          | 3H703          |                                       |
|                        |                   |                      |                                      |                        | Ca                          | rried out f | or VINCI Construct              | ction T/A Taylor Wo         | oodrow                 |              |                  |               |                     |               |                  |                                | © Copyright SOCO  | TEC UK Limited                      | AGS  |                            | Sheet 1 of 3   |                                       |
|                        |                   |                      |                                      |                        |                             |             |                                 |                             |                        |              |                  |               |                     |               |                  |                                | 1, 3  |                                     |  |                            |                |                                       |



| Checked                | De           |                               | Dates            |                         | Meth                                  |               |                | Equipment                     | Rig Cre                  |                | jer Logged                 |                   | Hole             | Ca            | sing             |                              |   | Depth Related Remain   | arks               |   |                         |              | SOCOTEC     |
|------------------------|--------------|-------------------------------|------------------|-------------------------|---------------------------------------|---------------|----------------|-------------------------------|--------------------------|----------------|----------------------------|-------------------|------------------|---------------|------------------|------------------------------|---|--|--------------------|---|-------------------------|--------------|-------------|
| 05                     |              | - 1.20 17 Mai<br>25.00 21 Mai |                  |                         | Hand dug ins<br>Rotary core           |               |                | Dando 3000<br>R67 Comacchio 3 | BB/BF<br>B05 DS/DF       |                | 3 18 Mar 2<br>0 04 Apr 2   | 2 Depth<br>2 1.20 | Dia. (mm)<br>200 | Depth<br>1.20 | Dia. (mm)<br>200 | Depth                        | Remarks                                       |  |                    |   | Ground Lev              |              | 56.54 mOD   |
| CP                     |              |                               |                  |                         | · · · · · · · · · · · · · · · · · · · | 3-            |                |                               |                          |                |                            | 25.00             | 150              | 17.20         | 150              |                              |   |  |                    |   | Coordinate              |              | E 527924.77 |
| Approved               |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    |   | National Gr             | 10           | N 141938.00 |
| СР                     |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    |   |                         |              | System      |
| CP                     |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    |   |                         |              |             |
| Date                   | Time         |                               | Samples          | 5                       |                                       | Field Tests   | ;              | Samp / Test                   | Coring                   | TCR %<br>SCR % | Water adde                 | d                 | Depth            | Level         | Logond           |                              |   | Strata Desc  | ription            |   |                         | Water        | Backfill    |
| Casing                 | Water        | Depth                         | Type & No.       | Records                 | Depth                                 | Туре          | Records        | Casing Water                  | Depth<br>(Diameter)      | RQD            | f<br>m) Flush detai        | le                | (Thicknes        |               | Legend           |                              |   | Main   |                    | Detail  | hise                    | Entry        | Dackiili    |
|                        | Water        | Deptil                        |                  | Records                 | Depti                                 |               | Records        | Casing Water                  | (Diameter)               | % (m           |                            | 13                | (Thicknes        | 5)            |                  | Very weak to                 | o weak grey to dark                           | grey fractured MUDSTONE  | with extremely     | Detail  | 0                       | <b>,</b>     |             |
| -                      |              | 10.20                         | D 24             |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   | inae of light grey siltstone. F<br>0/620) planar smooth or roug    |                    | 10.23-10.40 90 degre                              |                         |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               | 9.70 - 11.20             | 100            |                            |                   |                  |               |                  | degrees clos                 | sely spaced (30/190                           | 0/620) planar smooth of roug                                       | n clean.           | planar rough with dar<br>infill (up to 1mm).      | k grey clay             |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               | (101mm)                  | 100            |                            |                   |                  |               |                  |                              |   |  |                    | (ap to).  |                         |              |             |
| _                      |              |                               |                  |                         |                                       |               |                |                               |                          | 94             |                            |                   |                  |               |                  |                              |   |  |                    |   |                         |              |             |
| 11 —                   |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   | (3.1             | 5)            |                  |                              |   |  |                    |   |                         |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          | 3              | 0                          |                   |                  |               |                  |                              |   |  |                    | 11.14-11.20 45 degre<br>planar rough clean.       | e fracture              |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          | 62             | 20                         |                   |                  |               |                  |                              |   |  |                    |   |                         |              |             |
| -                      |              | 11.48 - 11.75                 | C 25             |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    |   |                         |              |             |
| -                      |              | 11.80                         | D 26             |                         |                                       |               |                |                               |                          | 100            |                            |                   |                  |               |                  |                              |   |  |                    |   |                         |              |             |
| 12 —                   |              |                               |                  |                         |                                       |               |                |                               | 11.20 - 12.70<br>(101mm) | 100<br>98      |                            |                   |                  |               |                  |                              |   |  |                    |   |                         |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               | (                        |                |                            |                   |                  |               |                  |                              |   |  |                    | 10 01 10 07 00 doors                              | a fractura              |              |             |
| _                      |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | 12.31-12.37 30 degre<br>planar rough clean.       |                         |              |             |
| ]                      |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   | 12.55            | +43.9         | 9                |                              | weak brownish grey                            | y MUDSTONE.  |                    | 12.58-12.70 70 degre<br>planar smooth clean.      |                         |              |             |
| ]                      |              |                               |                  |                         |                                       |               |                |                               |                          | 8              | 0                          |                   | (0.6             | 0)            |                  | (WEALD CL                    | AY FORMATION)                                 |  |                    | 12.59-12.69 0 degree                              | e fracture              |              |             |
| 13 —                   |              |                               |                  |                         |                                       |               |                |                               |                          | 17             |                            |                   |                  |               |                  |                              |   |  |                    | planar smooth clean.<br>12.80-12.91 50 degre      |                         |              |             |
|                        |              |                               |                  |                         |                                       |               |                |                               |                          |                | -                          |                   | 13.15            | +43.3         | 9                |                              | eak to weak dark g                            | rey MUDSTONE.  |                    | planar striated clean.                            |                         |              |             |
| -                      |              | 13.40                         | D 27             |                         |                                       |               |                |                               | 12.70 - 14.20            | 100<br>69 N    |                            |                   |                  |               |                  | (WEALD CL                    | AY FORMATION)                                 |  |                    | 12.95 0 degree plana<br>fracture.                 | ir smooth               |              |             |
|                        |              |                               |                  |                         |                                       |               |                |                               | (101mm)                  |                | 50                         |                   | (0.8             | 5)            |                  |                              |   |  |                    | 13.00-13.05 Recover                               |                         |              |             |
| _                      |              |                               |                  |                         |                                       |               |                |                               |                          |                | 10                         |                   |                  |               |                  |                              |   |  |                    | gravelly clay. Gravel i<br>fine to coarse of Mud  | is angular<br>stone. NI |              |             |
| 14 —                   |              |                               |                  |                         |                                       |               |                |                               |                          |                | _                          |                   | 14.00            | +42.5         | 4                | Verv weak to                 | weak grev to dark                             | grey MUDSTONE with extre   | mely closed        | clayey angular fine to                            |                         |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          |                | Water flush<br>3.30 - 25.0 |                   | c                |               |                  | spaced to ve                 | ery closed spaced t                           | hin laminae of white siltstone                                     | . Fractures are    | gravel of Mudstone.<br>13.28-13.36 NI of gre      | y clayey                |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          |                | 5.50 - 25.0                | 0                 |                  |               |                  | 0-10 degree<br>dark grey cla | s closely spaced (2<br>ay infill (less than 1 | 20/180/750) planar rough smo<br>mm).                               | ooth with rare     | angular to sub angula<br>coarse gravel of mud     | ar fine to              |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  | (WEĂLD CL                    | ÁY FORMATION)                                 | 1  |                    | 13.60-13.85 Stiff to ve                           |                         |              |             |
| -                      |              | 14.85                         | D 28             |                         |                                       |               |                |                               |                          | 100            |                            |                   |                  |               |                  |                              |   |  |                    | grey slightly gravelly s<br>Gravel is subangular  | silty clay.<br>fine to  |              |             |
| 15 —                   |              | 1.00                          | 2 20             |                         |                                       |               |                |                               | 14.20 - 15.70<br>(101mm) | 100<br>91      |                            |                   |                  |               |                  |                              |   |  |                    | coarse of mudstone.                               |                         |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               | (10111111)               | 91             |                            |                   |                  |               |                  |                              |   |  |                    | 14.40-14.63 Extreme<br>light grey mudstone.       | ly weak                 |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | light grey muusione.                              |                         |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | 15.53-15.68 Extreme<br>light grey mudstone.       | ly weak                 |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | 15.70-16.03 Recover                               |                         |              |             |
| 16 -                   |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | to firm dark grey grav<br>Gravel is angular fine  |                         |              |             |
| -                      |              | 16.10                         | D 29             |                         |                                       |               |                |                               |                          | 2              | 80                         |                   | (4.4             | 0)            |                  |                              |   |  |                    | of mudstone.                                      |                         |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               | 15.70 - 17.20            | 100 75<br>100  | 50                         |                   |                  |               |                  |                              |   |  |                    | 16.22-16.29 Soft dark<br>gravelly CLAY. Grave     |                         |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               | (101mm)                  | 83             |                            |                   |                  |               |                  |                              |   |  |                    | fine to coarse of mud                             | stone.                  |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | 16.29-16.46 60-90 de<br>fracture undulating sn    |                         |              |             |
| 17 - 23 Mar 22         | 0331         |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | rough clean.                                      |                         |              |             |
| 17.20                  | 1.60         |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | 16.77-16.93 90 degre<br>planar rough clean.       |                         |              |             |
| - 23 Mar 22<br>- 17.20 | 2000<br>1.60 |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | 17.41-17.50 90 degre                              | e fracture              |              |             |
|                        |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    | planar smooth with lig                            | ght grey silt           |              |             |
|                        |              | 17.80                         | D 30             |                         |                                       |               |                |                               |                          | 100            |                            |                   |                  |               |                  |                              |   |  |                    | infill (less than 0.5mm<br>17.45-17.51 80 degre   | i).<br>e planar         |              |             |
| 18 —                   |              |                               |                  |                         |                                       |               |                |                               | 17.20 - 18.75            | 97             |                            |                   |                  |               |                  |                              |   |  |                    | rough clean.<br>17.51-17.61 70 degre              | e fracture              |              |             |
| 1                      |              |                               |                  |                         |                                       |               |                |                               | (101mm)                  | 52             |                            |                   |                  |               |                  |                              |   |  |                    | planar smooth with da                             | ark grey                |              |             |
|                        |              |                               |                  |                         |                                       |               |                |                               |                          |                | _                          |                   | 18.40            | +38.1         | 4                | Weekter                      | dorotoly west-list (                          |  | th opposion-!      | clay infill (less than 1r<br>17.97-18.02 30 degre |                         |              |             |
|                        |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  | partings (up                 | to 50x3mm) and le                             | grey to grey MUDSTONE wi<br>enses (up to 70x70x2mm) of I           | iaht arev          | planar smooth clean.                              |                         |              |             |
| 1                      |              |                               |                  |                         |                                       |               |                |                               |                          | ┝──┤           |                            |                   |                  |               |                  | siltstone. Fra               | actures are 0-10 de                           | egrees closely to medium spa<br>rith rare dark grey clay infill (l | ced                | 18.03-18.11 Stiff grey<br>gravelly silty CLAY. gr |                         |              |             |
| 19 —                   |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              | 0) planar smooth w<br>AY FORMATION)           | nui raie uark grey clay inilli (l                                  | 555 u 1a11 U.ƏMM). | angular fine to coarse                            |                         |              |             |
|                        |              | 19.05 - 19.35                 | C 31             |                         |                                       |               |                |                               |                          | 100            |                            |                   |                  |               |                  |                              |   |  |                    | mudstone.<br>18.25-18.33 Stiff grey               | / slightly              |              |             |
| -                      |              |                               |                  |                         |                                       |               |                |                               |                          | 100<br>100     |                            |                   |                  |               |                  |                              |   |  |                    | gravelly silty CLAY. gr                           | ravel is sub            |              |             |
|                        |              | 19.55                         | D 32             |                         |                                       |               |                |                               | 18.75 - 20.30            | 69             |                            |                   |                  |               |                  |                              |   |  |                    | angular fine to coarse<br>mudstone.               |                         |              |             |
|                        |              |                               |                  |                         |                                       |               |                |                               | (101mm)                  |                |                            |                   |                  |               |                  |                              |   |  |                    | 19.66-19.96 Stiff grey<br>gravelly silty CLAY. gr | ravel is sub            |              |             |
| 20 —                   |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              | -   |  |                    | angular fine to coarse                            |                         |              |             |
|                        |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              | Hole  | e continues on next sheet  |                    | mudstone.   |                         |              |             |
| General Remarks        |              |                               |                  |                         | 1                                     | 1             |                | 1                             |                          | I I            | 1                          |                   | 1                |               | Hard I           | Boring / Chise               | lling   |  | Groundwater E      | Entries   |                         | 1            |             |
|                        |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  | -                            | Ouration (mins)                               | Tool   | No. Depth          | Remarks   |                         |              | Sealed      |
|                        |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   |  |                    |   |                         |              |             |
| Notes                  |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               | Status           |                              |   | 1  |                    | Borehole  |                         |              |             |
|                        | wmhole ·     | and abbreviation              | is see Kev to Ev | xploratory Hole Record  | ds All                                | oject         | Gatwick Northe | ern Runway Project (          | NRP)                     |                |                            |                   |                  |               | Status           |                              |   | Scale 1:50   |                    | Dorenoie  |                         |              |             |
|                        |              |                               |                  | en in brackets in depth |                                       | oject No.     | D2001-22       |                               |                          |                |                            |                   |                  |               |                  | FIN                          | AL  | Printed 22 Jul 2022  | 14:12:51           |   | E                       | 3H703        |             |
|                        |              |                               |                  |                         | Ca                                    | rried out for | VINCI Construe | ction T/A Taylor Woo          | drow                     |                |                            |                   |                  |               |                  |                              |   | © Copyright SOCOTI   | C I K I imited     | AGS   |                         | Sheet 2 of 3 |             |
|                        |              |                               |                  |                         |                                       |               |                |                               |                          |                |                            |                   |                  |               |                  |                              |   | S Copyright SOCOTI   |                    |   |                         | Uneel 2 01 3 |             |



| Checked            | Dep         | pth              | Dates             |   | Metho         | bd                         | Equipment            | Rig Cre                  | w Lo     | gger      | Logged        |               | ole        | Cas           | sing       |                                | Depth Related Rem   | arks   |                               |               | SOCOTI     |
|--------------------|-------------|------------------|-------------------|---|---------------|----------------------------|----------------------|--------------------------|----------|-----------|---------------|---------------|------------|---------------|------------|--------------------------------|---|--|-------------------------------|---------------|------------|
|                    | 0.00 -      | - 1.20 17 Mar    | r 22 - 18 Mar 22  |   | Hand dug insp | pection pit.               | Dando 3000           | BB/BR                    | N        | MB<br>CD  | 18 Mar 22     | Depth         | Dia. (mm)  | Depth         | Dia. (mm)  | Depth                          | Remarks   |  | Ground Le                     |               | 56.54 mC   |
| CP                 | 3.30 -      | 20.00   21 Mar   | r 22 - 24 Mar 22  |   | Rotary core   | unning.                    | R67 Comacchio 3      | B05 DS/DP                |          | JU        | 04 Apr 22     | 1.20<br>25.00 | 200<br>150 | 1.20<br>17.20 | 200<br>150 |                                |   |  | Coordinate                    |               | E 527924.7 |
| Approved           |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  | National G                    | irid          | N 141938.0 |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               | System     |
| CP                 |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| Date               | Time        |                  | Samples           |   |               | Field Tests                | Samp / Test          | Coring                   | TCR %    |           | Water added   |               |            |               |            |                                | Strata Des  | cription   |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      | Depth                    |          | If        |               |               | Depth      | Level         | Legend     |                                |   |  |                               | B Water       | Backfill   |
| 20 Casing          | Water       | Depth            | Type & No.        | Records   | Depth         | Type Records               | Casing Water         | (Diameter)               | % (      | mm)       | Flush details |               | (Thickness | 5)            | _          | Weak to mod                    | Main<br>derately weak light grey to grey MUDSTONE w   | ith occasional 20.04-20.18 90 deg                                |                               | <u>ר</u> נד   |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            | partings (up t                 | to 50x3mm) and lenses (up to 70x70x2mm) of  | light grey planar smooth with                                    | dark grey                     |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            | siltstone. Fra<br>(10/250/1230 | actures are 0-10 degrees closely to medium sp<br>0) planar smooth with rare dark grey clay infill ( | aced clay infill (less than less than 0.5mm). 20.06-20.16 80 deg |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            | (WEALD CLA                     | AY FORMATION)   | planar smooth clear  | l.                            |               |            |
| -                  |             | 20.73 - 20.98    | C 33              |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | 20.24-20.30 30 deg<br>planar striated clear                      | L.                            |               |            |
| 21 —               |             | 21.00            | D 34              | -   |               |                            |                      | 00.00.04.00              | 94<br>94 |           |               |               |            |               |            |                                |   | 20.30-20.36 30 deg<br>planar rough with da                       | ee fracture                   |               |            |
| -                  |             |                  |                   |   |               |                            |                      | 20.30 - 21.90<br>(101mm) | 94<br>78 |           |               |               |            |               |            |                                |   | infill (up to 1mm).  |                               |               |            |
| -                  |             | 01 00 01 66      | C 35              |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | 21.15-21.18 Stiff da<br>21.18-21.23 50 deg                       | rk grey clay.<br>ree fracture |               |            |
| -                  |             | 21.32 - 21.66    | 0.35              |   |               |                            |                      |                          |          |           |               |               |            | 0)            |            |                                |   | planar rough with lig<br>infill (less than 0.5m                  | ht grey silt                  |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               | (6.6       | 0)            |            |                                |   | 21.80-21.90 AZCL   | m).                           |               |            |
| 22 —               |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | 21.94-22.01 90 deg<br>planar smooth clear                        |                               |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | 22.01-22.05 20 deg   | ee fracture                   |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          | NI<br>190 |               |               |            |               |            |                                |   | planar striated clear<br>22.08-22.15 Recover                     |                               |               |            |
|                    |             | 22.60            | D 36              | -   |               |                            |                      | 21.90 - 23.50            | 94<br>72 | 970       |               |               |            |               |            |                                |   | dark brownish grey<br>CLAY. Gravel is and                        | gravelly                      |               |            |
|                    |             |                  |                   |   |               |                            |                      | (101mm)                  | 67       |           |               |               |            |               |            |                                |   | coarse of mudstone   |                               |               |            |
| 23 —               |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | 22.15-22.25 Extrem<br>dark brownish grey                         | ely weak                      |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | 22.25-22.30 Very st  | ff dark                       |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | brownish grey muds<br>22.47-22.56 Stiff to                       | tone.<br>/ery stiff           |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | grey clay.<br>23.19-23.40 NI. Dar                                |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | slightly clayey angu   | ar fine to                    |               |            |
| 24 —               |             |                  |                   |   |               |                            |                      |                          | 100      |           |               |               |            |               |            |                                |   | coarse gravel of mu<br>23.40-23.50 AZCL                          | dstone.                       |               |            |
|                    |             |                  |                   |   |               |                            |                      | 23.50 - 25.00            | 85<br>75 |           |               |               |            |               |            |                                |   | 23.95-24.10 70 deg   |                               |               |            |
| _                  |             | 24.40            | D 37              |   |               |                            |                      | (101mm)                  | /5       |           |               |               |            |               |            |                                |   | planar rough with da<br>infill (less than 0.5m                   | m).                           |               |            |
| -                  |             | 24.55 - 24.90    | C 38              |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   | 24.10-24.33 Very st<br>clay with very close                      | ff dark grey                  |               |            |
| 24 Mar 22<br>25.00 | 0344<br>Dry |                  |                   |   |               |                            |                      |                          |          |           |               |               | 25.00      | +31.54        |            |                                |   | thin laminae of light  | grey silt.                    |               | 25.00      |
| 25                 |             |                  |                   |   |               |                            |                      |                          |          |           |               | •             | 25.00      | +31.54        | •          |                                | END OF EXPLORATORY HOLE   |  |                               |               | 25.00      |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| 26 —               |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| 20                 |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| _                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| 27 —               |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| -                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| 28 —               |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| 29 —               |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| 30 —               |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                |   |  |                               |               |            |
| General Remarks    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               | Hard       | <br>Boring / Chisell           | ling  | Groundwater Entries  |                               |               |            |
|                    |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            | Depths D                       | Juration (mins) Tool  | No. Depth Remarks  |                               |               | Sea        |
| Notes              | wmbolo      | and abbreviation | ne saa Kau ta Eva | loratory Hole Pocorde                                 | AII Proj      | ject Gatwick North         | ern Runway Project ( | (NRP)                    |          |           |               |               |            |               | Status     | i                              | Scale 1:50  | Borehole   |                               |               |            |
| depths and reduced | d levels in | n metres. Stratu | m thickness giver | loratory Hole Records. A<br>n in brackets in depth co | All           | ject No. D2001-22          |                      |                          |          |           |               |               |            |               |            | FINA                           | AL Printed 22 Jul 2022  | 2 14:12:51   |                               | BH703         |            |
|                    |             |                  |                   |   | Cari          | ried out for VINCI Constru | ction T/A Taylor Woo | drow                     |          |           |               |               |            |               |            |                                | © Copyright SOCOT   | 2 14:12:51   |                               | Sheet 3 of 3  |            |
| L                  |             |                  |                   |   |               |                            |                      |                          |          |           |               |               |            |               |            |                                | Copylight SOCOT   |  |                               | 011001 0 01 0 |            |



| Checked                        | Dep         | oth                 | Dates                                |                           | Meth                         | od           |   | Equipmer              | nt Rig C              | rew L              | ogger      | Logged                       | H             | ole              | Casi          | ng               | Depth Related Remarks  |  |             |              | SOCOTEC               |
|--------------------------------|-------------|---------------------|--------------------------------------|---------------------------|------------------------------|--------------|---|-----------------------|-----------------------|--------------------|------------|------------------------------|---------------|------------------|---------------|------------------|--|--|-------------|--------------|-----------------------|
|                                |             |                     | r 22 - 22 Mar 22<br>r 22 - 22 Mar 22 |                           | Hand dug ins<br>Cable percus |              |   | Hand tool<br>Dando 17 |                       |                    | MB<br>MB   | 22 Mar 22<br>22 Mar 22       | Depth<br>4.50 | Dia. (mm)<br>200 | Depth<br>4.00 | Dia. (mm)<br>200 | Depth Remarks  |  | Ground Lev  |              | 58.97 mOD             |
| СР                             | 4.50 - 2    |                     | 4 Mar 22 -                           |                           | Rotary core                  |              | •   | R67 Comacch           |                       |                    |            |                              | 25.00         | 150              | 25.00         | 150              |  |  | Coordinates |              | E 528074.96           |
| Approved                       |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  |  |  | National Gr | Ia           | N 141895.79<br>System |
| СР                             |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  |  |  |             |              | System                |
| 01                             |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  |  |  |             |              |                       |
| Date                           | Time        |                     | Samples                              | 6                         |                              | Field        | Tests                                       | Samp / Test           |                       | TCR %<br>SCR %     | If         | Water added                  |               | Depth            | Level         | Legend           | Strata Description   |  | sel.        | Water        | Backfill              |
|                                | Water       | Depth               | Type & No.                           | Records                   | Depth                        | Туре         | Records                                     | Casing Wate           | Depth<br>r (Diameter) | RQD<br>%           | (mm)       | Flush details                |               | (Thickness       | s)            |                  | Main   | Detail   | Chis        | Entry        | _                     |
| 022 Mar 22                     | 0800<br>Drv | 0.00 - 0.30         | B 1                                  | -                         |                              |              |   |                       |                       |                    |            |                              |               | (0.5             |               |                  | ADE GROUND)<br>ass over brown gravelly clayey fine to coarse SAND with occasional  |  |             |              | Flush cover           |
| -                              | Dry         | 0.30<br>0.30        | D 3<br>ES 2                          |                           | 0.30                         | PID          | 0.1 ppmv (Test 1)                           |                       |                       |                    |            |                              |               | (0.5             |               |                  | tets and fragments of plastic and coal. Gravel is angular to subangul<br>to coarse of flint, chalk, brick and concrete.                          | r  |             |              |                       |
| -                              |             | 0.50 - 0.70         | B 4                                  |                           |                              |              |   |                       |                       |                    |            |                              |               | 0.50             | +58.47        |                  | ADE GROUND)  |  |             |              | 0.50                  |
|                                |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  | t to firm yellowish brown slightly gravelly slightly sandy CLAY with low<br>ble content and rare roots (up to 4mm). Sand is fine to coarse. Grav | lis  |             |              | 22                    |
| 1                              |             | 1.00 - 1.20<br>1.00 | B 7<br>ES 5                          |                           | 1.00                         | PID          | 0.1 ppmv (Test 2)                           |                       |                       |                    |            |                              |               | (1.0             | 0)            |                  | angular to subrounded fine to coarse of flint, brick and macadam. Co<br>angular (up to 70x70x70mm) of brick.                                     | obles  |             |              | 22                    |
| -                              |             | 1.10                | D 6                                  |                           | 1.20 - 1.65                  | SPT S        | N=4 (1,1/1,1,1,1)<br>ID BHDS06 Er 61%       | 1.65 1.10             |                       |                    |            |                              |               |                  |               |                  |  |  |             |              | 22                    |
|                                |             | 1.50 - 1.95         | D8                                   |                           |                              |              |   |                       |                       |                    |            |                              |               | 1.50             | +57.47        |                  | n orangish brown mottled grey CLAY with occasional pockets (up to  |  |             |              | 22                    |
| -                              |             | 1.50 - 1.95         | B 9                                  |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               | <u> </u>         | x2mm) of red fine sand.<br>EALD CLAY FORMATION)  |  |             |              | 22                    |
| 2 -                            |             | 2.00                | ES 10                                |                           | 2.00                         | PID          | 0.0 ppmv (Test 3)                           |                       |                       |                    |            |                              |               |                  |               | <u> </u>         |  |  |             |              |                       |
|                                |             |                     |                                      |                           |                              |              |   |                       | 1                     |                    |            |                              |               |                  |               |                  |  |  |             |              |                       |
|                                |             | 2.50 - 2.95         | D 11                                 |                           | 2.50 - 2.95                  | SPT S        | N=5 (1,1/1,1,1,2)                           | 2.50 Dry              | 1                     |                    |            |                              |               |                  |               |                  |  |  |             |              |                       |
|                                |             | 2.50 - 2.95         | B 12                                 |                           |                              |              | ID BHDS06 Er 61%                            | .,                    | 1                     |                    |            |                              |               | (2.4             | 5)            | F                |  |  |             |              |                       |
| 3                              |             | 3.00                | ES 13                                |                           | 3.00                         | PID          | 0.0 ppmv (Test 4)                           |                       |                       |                    |            |                              |               |                  |               | F                |  |  |             |              |                       |
|                                |             | 5.00                | 2313                                 |                           | 3.00                         |              | 0.0 ppint (1651 4)                          |                       | 1                     |                    |            |                              |               |                  |               | F                |  |  |             |              |                       |
|                                |             | 0.50 0.05           |                                      | 400 bls - 440'            |                              |              |   | 0.50 5                | 1                     |                    |            |                              |               |                  |               | F                |  |  |             |              |                       |
|                                |             | 3.50 - 3.95         | UT 14                                | 100 blows 44% rec         |                              |              |   | 3.50 Dry              | 1                     |                    |            |                              |               |                  |               | F                |  |  |             |              |                       |
|                                |             | 3.95                | D 15                                 |                           |                              |              |   |                       |                       |                    |            |                              |               | 3.95             | +55.02        |                  |  |  |             |              |                       |
| 4 —                            |             | 4.00 - 4.20<br>4.00 | B 17<br>ES 16                        |                           | 4.00<br>4.20 - 4.55          | PID<br>SPT S | 0.0 ppmv (Test 5)<br>100 (6,19/33,33,34 for | 4.00 Dry              |                       |                    |            |                              |               |                  |               |                  | remely weak brownish yellow mottled grey MUDSTONE. Fractures a<br>remely closely spaced randomly orientated planar rough closed with             |  |             |              |                       |
|                                | 1700        | 4.00<br>4.20 - 4.65 | D 18                                 |                           | 4.20 - 4.55                  | 5715         | 50mm)                                       | 4.00 DIy              |                       |                    |            |                              |               | (0.5             | 5)            |                  | k brown and orangish brown staining on surfaces.<br>EALD CLAY FORMATION)   |  |             |              |                       |
| 4.00<br>24 Mar 22              | Dry<br>2000 |                     |                                      |                           |                              |              | ID BHDS06 Ér 61%                            |                       |                       |                    |            |                              |               | 4.50             | +54.47        |                  | y stiff fissured light grey mottled orangish brown CLAY. Fissures are  | 4.50-4.63 Locally rec                            | overed as   |              |                       |
| 4.00                           | 1.60        | 4.70                | D 19                                 |                           |                              |              |   |                       | 4.50 - 5.20           | 100<br>NA          |            |                              |               |                  |               |                  | prees very closely spaced planar rough with reddish brown staining.<br>EALD CLAY FORMATION)  |  |             |              |                       |
| 5 —                            |             |                     |                                      |                           |                              |              |   |                       |                       | NA                 |            |                              |               | (1.1             | 5)            |                  |  |  |             |              |                       |
|                                |             | 5.30                | D 20                                 |                           |                              |              |   |                       |                       |                    |            |                              |               |                  | ,             |                  |  | 5.20-5.40 Becoming                               | grey.       |              |                       |
| -                              |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            | Water fluch                  | 05% rea       |                  |               |                  |  |  |             |              |                       |
|                                |             |                     |                                      |                           |                              |              |   |                       |                       | 100                |            | Water flush:<br>0.00 - 11.20 | 95% rec       | 5.65             | +53.32        |                  | remely weak grey to light grey MUDSTONE. Fractures are 0-5 degre   | es   |             |              |                       |
| 6 —                            |             | 5.87 - 6.19         | C 21                                 |                           |                              |              |   |                       | 5.20 - 6.70           | 70                 |            |                              |               |                  |               |                  | dium spaced (10/420/680) planar smooth rough clean rarely stained dish brown.  |  |             |              |                       |
|                                |             |                     |                                      |                           |                              |              |   |                       |                       | 70                 |            |                              |               |                  |               |                  | EALD CLAY FORMATION)   |  |             |              |                       |
| _                              |             |                     |                                      |                           |                              |              |   |                       |                       |                    | 10         |                              |               |                  |               |                  |  |  |             |              |                       |
| -                              |             |                     |                                      |                           | 6.70 - 7.00                  | SPT C        |   | 6.70 2.05             |                       |                    | 420<br>680 |                              |               |                  |               |                  |  |  |             |              |                       |
| 7                              |             |                     |                                      |                           |                              |              | 55mm/31,52,17 for<br>15mm)                  |                       |                       |                    |            |                              |               |                  |               |                  |  |  |             |              |                       |
|                                |             | 7.10                | D 22                                 |                           |                              |              | ID TH72 Er 64%                              |                       |                       |                    |            |                              |               | (3.0             | 5)            |                  |  | 7.26-7.61 Becomes r                              | oddiab      |              |                       |
| -                              |             |                     |                                      |                           |                              |              |   |                       | 6.70 - 8.20           | 100<br>94          |            |                              |               |                  |               |                  |  | brown.   |             |              |                       |
| -                              |             |                     |                                      |                           |                              |              |   |                       |                       | 44                 |            |                              |               |                  |               |                  |  | 7.43-7.53 Moderately<br>reddish brown mudst      | one.        |              |                       |
| -                              |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  |  | 7.43-7.61 85 degree<br>planar smooth with re     | eddish      |              |                       |
| 8 —                            |             |                     |                                      |                           | 8.20 - 8.40                  | SPT C        | 100 (25 for                                 | 8.20 3.65             | 1                     |                    |            |                              |               |                  |               |                  |  | brown clay infill (up to<br>7.58-7.61 Moderately |             |              |                       |
|                                |             |                     |                                      |                           | 0.20 - 0.40                  |              | 65mm/42,58 for                              | 0.20 0.00             | 1                     |                    |            |                              |               |                  |               |                  |  | reddish brown mudst<br>8.10-8.20 NI reddish      | one.        |              |                       |
|                                |             |                     |                                      |                           |                              |              | 60mm)<br>ID TH72 Er 64%                     |                       | 1                     |                    |            |                              |               | 0.70             | . 50.07       |                  |  | to coarse gravel of m<br>with randomly orienta   | udstone     |              | 8.50                  |
|                                |             | 8.85                | D 23                                 |                           |                              |              |   |                       |                       | 100                |            |                              |               | 8.70             | +50.27        |                  | y weak to weak grey MUDSTONE. Fractures are 0-10 degrees very<br>sely to closely spaced (20/180/600) planar rough smooth clean rarely            | fractures planar smo<br>8.20-8.27 Strong ligh    | oth clean.  |              |                       |
| 9 —                            |             |                     |                                      |                           |                              |              |   |                       | 8.20 - 9.70           | 100<br>89          |            |                              |               |                  |               |                  | ed with light grey clay (up to 1mm).<br>EALD CLAY FORMATION)   | brown sandstone.                                 |             |              |                       |
|                                |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  |  | 8.27-8.33 Reddish bi<br>8.33-8.42 Moderately     | weak dark   |              |                       |
|                                |             | 9.32 - 9.62         | C 24                                 |                           |                              |              |   |                       | 1                     |                    |            |                              |               |                  |               |                  |  | greyish brown mudst<br>8.93-9.01 45 degree       |             |              |                       |
|                                |             |                     |                                      |                           |                              |              |   |                       | 1                     | $\left  - \right $ |            |                              |               |                  |               |                  |  | planar rough clean.                              |             |              |                       |
| 10 —                           |             |                     |                                      |                           |                              |              |   |                       | 1                     |                    |            |                              | I             |                  |               |                  | Hole continues on next sheet   | 9.91-10.51 NI. Firm o                            | lark grey   |              |                       |
|                                |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  |  |  |             |              |                       |
| General Remarks                |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               | Hard E           | -  | ater Entries<br>epth Remarks                     |             |              | Sealed                |
|                                |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               | Ī                |  |  |             |              | 554154                |
|                                |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  |  |  |             |              |                       |
| Notos                          |             |                     |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               | Oferture         | I  | Develo   |             |              |                       |
| Notes<br>For explanation of sy | /mbols a    | and abbreviation    | ns see Kev to Fx                     | ploratory Hole Records    | s. All                       | oject        |   | ern Runway Proje      | ct (NRP)              |                    |            |                              |               |                  |               | Status           | Scale 1:50   | Borehole   |             |              |                       |
| depths and reduced             | levels in   | n metres. Stratu    | m thickness give                     | en in brackets in depth o | column. Pro                  | oject No.    | D2001-22                                    |                       |                       |                    |            |                              |               |                  |               |                  | FINAL Printed 22 Jul 2022 14:12:51   | AGS  | E           | 3H705        |                       |
|                                |             |                     |                                      |                           | Ca                           | rried out f  | or VINCI Constru                            | ction T/A Taylor W    | /oodrow               |                    |            |                              |               |                  |               |                  | © Copyright SOCOTEC UK Limit   | d AGS  |             | Sheet 1 of 3 |                       |
|                                |             | -                   |                                      |                           |                              |              |   |                       |                       |                    |            |                              |               |                  |               |                  |  |  |             |              |                       |



| Checked            | Dep          |                  | Dates                                  |  | Metho                            |             |                 | Equipment               |                 |              | ogger      | Logged                        |               | ole              | Cas           | •                |                               |  | Depth Relate                                     | d Remarks                         |                                 |   |                         |   | SOCOTEC                    |
|--------------------|--------------|------------------|--|--|----------------------------------|-------------|-----------------|-------------------------|-----------------|--------------|------------|-------------------------------|---------------|------------------|---------------|------------------|-------------------------------|--|--|-----------------------------------|---------------------------------|---|-------------------------|---|----------------------------|
| СР                 | 1.20 -       | - 4.50   22 Ma   | ar 22 - 22 Mar 22<br>ar 22 - 22 Mar 22 |  | Hand dug insp<br>Cable percusion |             |                 | Hand tools<br>Dando 175 |                 | 1   I        | MB<br>MB   | 22 Mar 22<br>22 Mar 22        | Depth<br>4.50 | Dia. (mm)<br>200 | Depth<br>4.00 | Dia. (mm)<br>200 | Depth                         | Remarks                                  |  |                                   |                                 |   | ound Level<br>ordinates |   | 58.97 mOD<br>E 528074.96   |
| CP                 | 4.50 -       | 25.00            | 24 Mar 22 -                            |  | Rotary core                      |             |                 | R67 Comacchio           | 305 DS/PS       | 5            |            |                               | 25.00         | 150              | 25.00         | 150              |                               |  |  |                                   |                                 |   | tional Grid             |   | E 526074.96<br>N 141895.79 |
| Approved           |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 | i i i                                     |                         |   | System                     |
| CP                 |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   | -                          |
|                    |              |                  |  |  |                                  |             |                 |                         |                 | TCR %        |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
| Date               | Time         |                  | Samples                                |  |                                  | Field T     |                 | Samp / Test             | Coring<br>Depth | SCR %<br>RQD | lf         | Water added                   |               | Depth            | Level         | Legend           |                               |  |  | ta Description                    |                                 |   |                         | Water<br>Entry                                | Backfill                   |
| 10 Casing          | Water        | Depth            | Type & No.                             | Records  | Depth                            | Туре        | Records         | Casing Water            | (Diameter)      | % (          | (mm)       | Flush details                 |               | (Thickness       | 5)            |                  | Verv weak to                  | weak grev MUDS                           | Main<br>TONE. Fractures are                      | 0-10 degrees ver                  | v gravelly cla                  | Detail<br>y. Gravel is angul              | ar 5                    |   | ••••••                     |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  | closely to clo                | sely spaced (20/1<br>ght grey clay (up t | 80/600) planar rough                             | smooth clean rare                 | by to subangu<br>mudstone.      | ar fine to coarse                         | of                      |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         | 9.70 - 11.20    | 100          |            |                               |               |                  |               |                  |                               | AY FORMATION)                            | o minj.  |                                   |                                 | Extremely close                           | lv                      |   |                            |
|                    |              | 10.75            | D 25                                   |  |                                  |             |                 |                         |                 | 60<br>39     |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 | laminae of white                          |                         |   |                            |
| 11 -               |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   | Silisione.                      |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
| -                  |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
| -                  |              |                  |  |  |                                  |             |                 |                         | 11.20 - 12.70   | 100<br>100   |            | Water flush:                  | 35% rec       | (6.1             | 5)            |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
| 12 —               |              |                  |  |  |                                  |             |                 |                         | 11.20 - 12.70   | 79           |            | 11.20 - 12.70                 | 35% Tec       |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
|                    |              | 12.25            | D 26                                   |  |                                  |             |                 |                         |                 |              | NI         |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              | 140<br>570 |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
| 13 —               |              | 12.89 - 13.20    | C 27                                   |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
|                    |              | 13.20            | D 28                                   |  |                                  |             |                 |                         |                 | 100          |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         | 12.70 - 14.20   | 100          |            | Water flush:<br>12.70 - 14.20 | 30% rec       |                  |               |                  |                               |  |  |                                   |                                 | 3 30 degree fractu                        | ıre                     |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 | 77           |            | 12.70 - 14.20                 |               |                  |               |                  |                               |  |  |                                   | planar roug<br>13.77-13.84      | h clean.<br>I Extremely close             | lv                      |   |                            |
| 14 —               |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   | spaced thin siltstone.          | laminae of white                          | · ·                     |   |                            |
| -                  |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   | Silisione.                      |   |                         |   |                            |
| -                  |              | 44.50            | D 00                                   |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 | Moderately wea                            |                         |   |                            |
|                    |              | 14.50            | D 29                                   |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   | dark brown                      | sh grey mudston                           | e.                      |   |                            |
| -                  |              |                  |  |  |                                  |             |                 |                         | 14.20 - 15.70   | 100          |            |                               |               | 14.85            | +44.12        |                  | Verv weak be                  | ecoming weak dar                         | k grey MUDSTONE. I                               | Fractures are 0-10                | )                               |   |                         |   |                            |
| 15 —               |              |                  |  |  |                                  |             |                 |                         | 14.20 - 15.70   | 100<br>71    |            |                               |               |                  |               |                  |                               |  | iced (50/200/720) pla                            |                                   |                                 |   |                         |   | SP 📮                       |
|                    |              | 15.30            | D 30                                   |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               | AY FORMATION)                            |  |                                   |                                 |   |                         |   |                            |
| 25 Mar 22<br>15.70 | 0330<br>2.65 |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 | ) 60 degree fractu                        | ıre                     |   | 15.50                      |
| - 25 Mar 22        | 2000         |                  |  |  |                                  |             |                 |                         |                 | $\vdash$     |            |                               |               |                  |               |                  |                               |  |  |                                   | 15.70-15.80                     | h closed clean.<br>) 60 degree fractu     | ıre                     |   |                            |
| 16 - 15.70         | 2.65         |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   | 15.95-16.11                     | oth clean closed.<br>NI. Very stiff       |                         |   |                            |
| -                  |              |                  |  |  |                                  |             |                 |                         |                 | 100          |            |                               |               |                  |               |                  |                               |  |  |                                   | gravelly cla<br>coarse of m     | y. Gravel is angul<br>judstone.           | ar                      |   |                            |
| -                  |              | 16.40            | D 31                                   |  |                                  |             |                 |                         | 15.70 - 17.20   | 00           | NI<br>150  |                               |               | (3.3             | 5)            |                  |                               |  |  |                                   | 16.40 Beco                      |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 | 75           | 150<br>720 |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
| 17 —               |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
| -                  |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
| -                  |              | 17.30            | D 32                                   |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   | interbedded                     | ) Very thinly to thi<br>I medium strong o | dark                    |   |                            |
| -                  |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 | ey mudstone and<br>/eak dark grey         | 1                       |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         | 17.20 - 18.70   | 100<br>100   |            |                               |               |                  |               |                  |                               |  |  |                                   | mudstone.                       | 3 75 degree fractu                        | ıre                     |   |                            |
| 18 —               |              | 18.20            | D 33                                   |  |                                  |             |                 |                         | 11.20 - 10.70   | 83           |            |                               |               | 18.20            | +40.77        |                  |                               |  |  |                                   | planar smo                      | oth clean closed.<br>3 Very weak to we    |                         |   |                            |
|                    |              | 10.20            |  |  |                                  |             |                 |                         |                 | [            |            |                               |               | 10.20            | . 40.77       |                  | Extremely we<br>Fractures are | eak thinly laminate<br>0-10 degrees ver  | d to very thinly bedde<br>y closely to closely s | ed MUDSTONE.<br>paced (10/80/290) | dark grey m                     |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  | smooth clear                  |  |  | /                                 | planar smo                      | oth clean closed.                         |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            | Water flush:                  | 10% rec       |                  |               |                  | , <u> </u>                    |  |  |                                   | planar smo                      | 3 30 degree fractu<br>oth clean closed.   |                         |   |                            |
| 19                 |              |                  |  |  |                                  |             |                 |                         |                 |              | NI<br>70   | 14.20 - 23.40                 |               | (1.7             | 0)            |                  |                               |  |  |                                   | planar roug                     | l 90 degree fractu<br>h clean closed.     |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 | 70           | 270        |                               |               |                  |               |                  |                               |  |  |                                   | 18.61-18.66<br>smooth clea      | 30 degree plana                           | ar 🛛                    |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         | 18.70 - 20.20   | 55           |            |                               |               |                  |               |                  |                               |  |  |                                   | 18.70-18.88                     | 3 75 degree fractu<br>ted clean closed.   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  | Weak to mod                   | lerately weak light                      | grey to grey MUDST<br>0/560) planar smooth       | ONE. Fractures ar                 | re 0-10 \  18.92-19.09          | NI. Dark grey                             |                         |   |                            |
| 20 —               |              |                  |  |  |                                  |             |                 |                         |                 | -            | _          |                               |               | 19.90            | +39.07        |                  | (WEALD CLA                    | AY FORMATION)                            | e continues on next sheet                        | 5.0un 01036U.                     | gravel of m                     |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 | 3 15 degree fractu<br>oth clean closed.   | ıre                     |   |                            |
| General Remarks    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  | oring / Chisell               | ling<br>uration (mins)                   | Tool   |                                   | dwater Entries<br>Depth Remarks |   |                         |   | Sealed                     |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               | "                | epths D                       |  | 1001   | NO.                               | Depui Reindriks                 |   |                         |   | Sealed                     |
| 1                  |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         |   |                            |
|                    |              |                  |  |  |                                  |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  | -  |                                   |                                 |   |                         |   | ]                          |
| Notes              |              | and abbey 1.1    | na aac 1/                              | velerator Hall D                                   | Proj                             | ject        | Gatwick Northe  | ern Runway Project      | (NRP)           |              |            |                               |               |                  |               | Status           |                               |  | Scale 1:50                                       | )                                 | В                               | orehole                                   |                         |   |                            |
| depths and reduced | l levels ir  | n metres. Strati | um thickness give                      | xploratory Hole Record<br>ren in brackets in depth | IS. All                          | ject No.    | D2001-22        |                         |                 |              |            |                               |               |                  |               |                  | FINA                          | AL.                                      | Printed 22 J                                     | ul 2022 14:12:51                  |                                 |   | Bł                      | 1705  |                            |
|                    |              |                  |  |  | Car                              | ried out fo | r VINCI Constru | ction T/A Taylor Wo     | odrow           |              |            |                               |               |                  |               |                  |                               |  | © Copyright S                                    | SOCOTEC UK Lim                    | nited AGS                       |   | Sh                      | eet 2 of 3                                    |                            |
| L                  |              |                  |  |  | L                                |             |                 |                         |                 |              |            |                               |               |                  |               |                  |                               |  |  |                                   |                                 |   |                         | <u>, , , , , , , , , , , , , , , , , , , </u> |                            |



|               | Checked     |               | pth          | Dates                                      |                            | Metho                            |                  | Equipment                     |                     |                | ogger      | Logged<br>22 Mar 22        |               | ole              | Cas           |                  |                            |                       | Depth Related Rem   | arks                        |   |                           | _            | SOCOTEC                  |
|---------------|-------------|---------------|--------------|--|----------------------------|----------------------------------|------------------|-------------------------------|---------------------|----------------|------------|----------------------------|---------------|------------------|---------------|------------------|----------------------------|-----------------------|---|-----------------------------|---|---------------------------|--------------|--------------------------|
|               | CP          | 1.20          | - 4.50 22    | 2 Mar 22 - 22 Mar 2<br>2 Mar 22 - 22 Mar 2 | 22                         | Hand dug inspe<br>Cable percusio | on drilling.     | Hand tools<br>Dando 175       |                     | н              | MB<br>MB   | 22 Mar 22<br>22 Mar 22     | Depth<br>4.50 | Dia. (mm)<br>200 | Depth<br>4.00 | Dia. (mm)<br>200 | Depth                      | Remarks               |   |                             |   | Ground Lev<br>Coordinates |              | 58.97 mOD<br>E 528074.96 |
|               |             | 4.50 -        | - 25.00      | 24 Mar 22 -                                |                            | Rotary core                      | drilling.        | R67 Comacchio                 | 305 DS/P            | S              |            |                            | 25.00         | 150              | 25.00         | 150              |                            |                       |   |                             |   | National Gri              |              | N 141895.79              |
| · / '         | Approved    |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              | System                   |
|               | CP          |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | Date        | Time          |              | Sample                                     | es                         |                                  | Field Tests      | Samp / Test                   | Coring              | TCR %<br>SCR % |            | Water added                |               | Depth            | Level         | Legend           |                            |                       | Strata Des  | ription                     |   | е.<br>-                   | Water        | Backfill                 |
|               | Casing      | Water         | Depth        | Type & No.                                 | Records                    | Depth                            | Type Reco        | ords Casing Water             | Depth<br>(Diameter) | RQD            | lf<br>(mm) | Flush details              |               | (Thickness       |               | Legenu           |                            |                       | Main  |                             | Detail  | Chis                      | Entry        | Buokini                  |
| 20            | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  | Weak to mod                | lerately weak ligh    | t grey to grey MUDSTONE. F<br>90/560) planar smooth clean o | ractures are 0-10           | 19.28-19.37 NI. Dark<br>clayey angular to sub       |                           |              |                          |
|               | -           |               | 20.20 - 20   | ).49 C 34                                  | -                          |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  | (WEALD CLA                 | Y FORMATION)          |   |                             | fine to coarse gravel o<br>mudstone.                | of                        |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 19.37-19.45 NI. Firm gravelly clay. Gravel is       |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     | 97             |            |                            |               |                  |               |                  |                            |                       |   |                             | to subangular fine to o<br>mudstone.                | coarse of                 |              |                          |
| 21            | -           |               | 21.10        | D 35                                       | -                          |                                  |                  |                               | 20.20 - 21.80       | 77<br>62       |            |                            |               |                  |               |                  |                            |                       |   |                             | 19.65-19.71 Firm light                              | t grey clay.              |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 19.75-19.82 Firm light<br>21.02-21.08 30 degre      | e fracture                |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | planar smooth clean o<br>21.20-21.29 NI. Grey       | clayey                    |              |                          |
|               | -           |               | 21.90        | D 36                                       |                            |                                  |                  |                               |                     | $\vdash$       |            |                            |               |                  |               |                  |                            |                       |   |                             | angular to subangular<br>coarse gravel of mude      | stone.                    |              |                          |
| 22            |             |               | 2.1.00       |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 21.37-21.41 90 degre<br>planar smooth clean of      | closed.                   |              |                          |
|               |             |               |              |  |                            |                                  |                  |                               |                     |                | NI         |                            |               |                  |               |                  |                            |                       |   |                             | 21.37-21.43 85 degre<br>planar rough clean clo      | osed.                     |              |                          |
|               |             |               |              |  |                            |                                  |                  |                               | 21.80 - 23.40       |                | 140<br>420 |                            |               | (5.1             | U)            |                  |                            |                       |   |                             | 21.43-21.70 NI. Dark<br>clayey angular to sub       | angular                   |              |                          |
|               |             |               |              |  |                            |                                  |                  |                               |                     | 89             |            |                            |               |                  |               |                  |                            |                       |   |                             | fine to coarse gravel o<br>mudstone.                | of                        |              |                          |
| 23            | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 21.46-21.56 90 degre<br>planar smooth clean o       |                           |              |                          |
|               |             |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 21.70-21.80 AZCL<br>22.37-22.60 90 degre            |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | undulating rough with<br>silt infill (up to 0.5mm)  | light grey                |              |                          |
|               | -           |               | 23.75        | D 37                                       | -                          |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 22.60-22.75 90 degre<br>planar rough clean.         |                           |              |                          |
| 24            | -           |               |              |  |                            |                                  |                  |                               |                     | 91             |            |                            |               |                  |               |                  |                            |                       |   |                             | 23.35-23.40 AZCL<br>23.40-23.48 70 degre            | e nlanar                  |              |                          |
|               | -           |               | 24.23 - 24   | 4.55 C 38                                  |                            |                                  |                  |                               | 23.40 - 25.00       | 64<br>43       |            | Water flush: 23.40 - 25.00 | 0% rec        |                  |               |                  |                            |                       |   |                             | smooth infill with dark<br>23.71-23.73 Firm dark    | grey clay.                |              |                          |
|               | -           |               | 24.23 - 24   | 4.00 0.00                                  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | brown clay.<br>23.84-24.23 NI. Soft t               |                           |              |                          |
|               | -<br>26 Mai | 22 0500       |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | gravelly clay. Gravel is<br>to subangular fine to o | s angular                 |              |                          |
| 25            | 15.00       | 3.90          | -            |  |                            |                                  |                  |                               |                     |                |            |                            |               | 25.00            | +33.97        | -                |                            | END                   | OF EXPLORATORY HOLE   |                             | mudstone.   |                           |              | 25.00                    |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 24.78-24.80 NI. Grey<br>subangular gravel of r      | nudstone.                 |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 24.80-24.84 20 degre<br>planar smooth clean o       | closed.                   |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | 24.80-24.85 30 degre<br>planar smooth with of       | light grey                |              |                          |
| 26            | _           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             | silt infill (up to 0.5mm)<br>24.85-25.00 AZCL       | ).                        |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
| 27            | _           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
| 28            | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
| 29            | _           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               |             |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               | -           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               |             |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
| 30            | 4           |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
|               |             |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
| Gen           | eral Rema   | rks           |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  | oring / Chisell<br>epths D | ing<br>uration (mins) | Tool  | Groundwater Er<br>No. Depth |   |                           |              | Sealed                   |
|               |             |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  | 5                          |                       |   |                             |   |                           |              | Soulod                   |
|               |             |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |
| Note          |             |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               | Status           |                            |                       |   | 1                           | Borehole  |                           |              |                          |
| Note<br>For e | explanatior | of symbols    | and abbrev   | iations see Key to E                       | Exploratory Hole Records   | s. All                           |                  | wick Northern Runway Projec   | (NRP)               |                |            |                            |               |                  |               | Status           |                            |                       | Scale 1:50  |                             |   | _                         |              |                          |
| dept          | hs and red  | uced levels i | in metres. S | tratum thickness gr                        | ven in brackets in depth o | column. Proje                    |                  | 101-22                        | odrow               |                |            |                            |               |                  |               |                  | FINA                       | AL.                   | Printed 22 Jul 2022   | 14:12:51                    | AGS   | E                         | BH705        |                          |
|               |             |               |              |  |                            | Carr                             | ried out for VIN | CI Construction T/A Taylor Wo | oulow               |                |            |                            |               |                  |               |                  |                            |                       | © Copyright SOCOT   | EC UK Limited               | AGS   | :                         | Sheet 3 of 3 |                          |
|               |             |               |              |  |                            |                                  |                  |                               |                     |                |            |                            |               |                  |               |                  |                            |                       |   |                             |   |                           |              |                          |



| Checked             | Dep          |                            | Dates                              |  | Meth                         | od           |   | Equ           | uipment              | Rig C               | rew L          | .ogger     | Logged                     | н             | ole              | Cas           | ing              | SOCOT<br>Depth Related Remarks   |
|---------------------|--------------|----------------------------|------------------------------------|--|------------------------------|--------------|---|---------------|----------------------|---------------------|----------------|------------|----------------------------|---------------|------------------|---------------|------------------|--|
|                     | 0.00 -       | 1.20 09 Mai<br>2.55 10 Mai | r 22 - 10 Mar 2<br>r 22 - 11 Mar 2 |  | Hand dug ins<br>Cable percus |              |   |               | nd tools<br>ido 3000 | LW/.<br>BB/E        |                | MB<br>MB   | 10 Mar 22<br>10 Mar 22     | Depth<br>2.55 | Dia. (mm)<br>200 | Depth<br>1.20 | Dia. (mm)<br>300 |  |
| CP                  |              | 25.40 15 Mai               |                                    |  | Rotary cor                   |              |   |               | macchio              |                     |                | CD/LI      | 22 Mar 22                  | 4.50          | 150              | 4.50          | 153              |  |
| Approved            |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            | 25.40         | 146              | 25.40         | 146              |  |
| СР                  |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | System   |
| 01                  |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  |  |
| Date                | Time         |                            | Sampl                              | es   |                              | Field 1      | Tests                                     | Samp          | / Test               | Coring              | TCR %<br>SCR % |            | Water added                |               | Depth            | Level         | Legend           | Strata Description   |
| Casing              | Water        | Depth                      | Type & No.                         | Records  | Depth                        | Туре         | Records                                   | Casing        | Water                | Depth<br>(Diameter) | RQD            | IT         | Flush details              |               | (Thickness       |               |                  | Main Detail $\vec{c}$ Entry  |
| 0 - 09 Mar 22       | 0815         | 0.00 - 0.20<br>0.20        | B 1<br>D 2                         | _  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | (MADE GROUND)<br>Grass over soft to firm brown slightly gravelly slightly sandy CLAY. Sand is  |
| 0.00                | Dry          | 0.20                       | ES 3                               |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | fine to coarse. Gravel is subangular to subrounded fine to coarse of flint,  |
|                     |              | 0.50 - 0.90                | B 4                                |  |                              |              |   |               |                      |                     |                |            |                            |               | (0.9             | 0)            |                  | macadam and sandstone.   |
| -                   |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | 0.80   |
| 1 - 10 Mar 22       | 0430         | 1.00                       | ES 5                               | -  |                              |              |   |               |                      |                     |                |            |                            |               | 0.90 (0.3        | +56.19        | )                | Firm yellowish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is subrounded fine to coarse of flint.  |
| 0.00<br>10 Mar 22   | 1.10<br>2000 | 1.10 - 1.20<br>1.20 - 1.65 | B 7<br>D 9                         |  | 1.20 - 1.65                  | SPT S        | N=26 (3,3/5,6,6,9)                        | 1.20          | 0.80                 |                     |                |            |                            |               | 1.20             | +55.89        | • 🚟              | (Possible MADE GROUND)   |
| 0.00                | 0.80         | 1.20<br>1.20               | D 6<br>EW 8                        |  |                              |              | ID TH52 Er 53%                            |               |                      |                     |                |            |                            |               |                  |               |                  | Stiff to very stiff light yellow mottled grey slightly gravelly slightly sandy CLAY.<br>Sand is fine to coarse. Gravel is subangular to subrounded medium to coarse  |
| -                   |              | 1.50 - 2.00                | B 11                               |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | of flint.<br>(Possible MADE GROUND)  |
| 2                   |              | 2.00 - 2.45                | UT 12                              | 88 blows 100% rec                                    |                              |              |   | 2.00          | Dry                  |                     |                |            |                            |               | (1.2             | 25)           |                  | Specific States and Specif |
| 2                   |              | 2.00 - 2.43                | ES 11                              | 00 01003 100 /0100                                   |                              |              |   | 2.00          | Diy                  |                     |                |            |                            |               |                  |               |                  |  |
| -                   |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               | 2.45             | +54.64        |                  |  |
|                     |              | 2.50                       | D 13                               |  |                              |              |   |               |                      |                     |                |            |                            | 1             | (0.1             |               |                  | Very weak light yellow MUDSTONE. 2.50 (WEALD CLAY FORMATION)   |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               | 2.55             |               |                  | Stiff to very stiff fissured light grey mottled orangish brown CLAY. Fissures are 2.81-3.02 85 degree fracture   |
| 3 —                 |              |                            |                                    |  |                              |              |   |               |                      | 2.55 - 3.60         | 100<br>NA      |            | Mist flush:                | 100%          | (1.0             | 5)            |                  | - brownish grey clay infill.   |
|                     |              | 3.20                       | D 14                               | -  |                              |              |   |               |                      |                     | NA             |            | 2.55 - 3.60                | rec           |                  | -             |                  | (WEALD CLAY FORMATION)   |
|                     |              | 2.60                       | D 15                               |  | 260 405                      |              | N-40 (7 40/0 7 40 04)                     | 0.50          | D.m.:                |                     |                |            |                            |               | 3.60             | +53.49        |                  |  |
|                     |              | 3.60                       | D 15                               |  | 3.60 - 4.05                  | 0710         | N=49 (7,10/9,7,12,21)<br>ID AR1601 Er 64% | ) 2.50        | DIY                  |                     |                |            |                            |               | 3.00             | +00.48        | /                | Extremely weak grey to light grey MUDSTONE. Fractures are 0 degrees very closely to closely spaced (10/130/580) planar smooth or rough with grey to  |
| 4 —                 |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | light grey clay infil.<br>(WEALD CLAY FORMATION)   |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     | 100            |            |                            |               |                  |               |                  | (WEALD CLAF FORMATION) 4.12-4.21 70 degree fracture<br>planar rough with light grey clay   |
|                     |              | 4.40                       | D 16                               | _  |                              |              |   |               |                      | 3.60 - 5.10         |                |            | Mist flush:<br>3.60 - 5.10 | 100%<br>rec   |                  |               |                  | infill.  |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     | 0/             |            | 0.00 - 0.10                | 100           |                  |               |                  | 4.24-4.34 80 degree fracture<br>planar smooth and rough with   |
| -                   |              | 4.62 - 4.90                | C 17                               | -  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | light grey and stained brownish grey infill.   |
| 5 —                 |              | 5.10                       | D 18                               | _  | 5.10 - 5.24                  | SPT S        | 100 (25 for                               | 2.50          | Dry                  |                     |                | 10<br>130  |                            |               | (3.0             | 0)            |                  | 4.45-4.53 80 degree fracture<br>undulating rough with light grey   |
|                     |              |                            |                                    |  |                              |              | 40mm/62,38 for 20mm)                      |               | -                    |                     |                | 580        |                            |               |                  |               |                  | inductions rough with right groy<br>clay staining and brownish grey  |
|                     |              |                            |                                    |  |                              |              | ID AR1601 Er 64%                          |               |                      |                     |                |            |                            |               |                  |               |                  |  |
| -                   |              |                            |                                    |  |                              |              |   |               |                      | 5 40 0 00           | 100            |            | Mathematic                 | 400%          |                  |               |                  | 5.70-6.10 Mottled reddish brown.   |
| 6 —                 |              |                            |                                    |  |                              |              |   |               |                      | 5.10 - 6.60         | 100<br>64      |            | Mist flush:<br>5.10 - 6.60 | 100%<br>rec   |                  |               |                  | 5.76-5.87 80 degree fracture   |
|                     |              | 6.25                       | D 19                               |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | planar smooth stained brownish<br>grey.  |
| -                   |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | 5.92-6.00 60 degree fracture<br>planar rough and smooth clean.   |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                | 500        |                            |               | 6.60             | +50.49        | )                | 5.97-6.05 60 degree fracture   |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                | 500<br>500 |                            |               | (0.5             | 60)           |                  | (WEALD CLAY FORMATION) 6.03-6.14 90 degree fracture<br>planar smooth clean.  |
| 7 —                 |              | 7.00                       | D 20                               |  |                              |              |   |               |                      |                     |                | 500        |                            |               | 7.10             | +49.99        | )                | Extremely to your weak light grow to grow MIDSTONE Eractures are 0.10 6.03-6.17 70 degree fracture   |
|                     |              |                            |                                    |  |                              |              |   |               |                      | 6.60 - 8.10         | 100<br>100     |            | Mist flush:                | 100%          |                  |               |                  | degrees very closely to closely spaced locally extremely closely spaced<br>(10(440/200) closer route areasth areasth closely spaced with light area along (in the  |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     | 88             |            | 6.60 - 8.10                | rec           |                  |               |                  | 3mm).  |
| -                   |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | (WEALD CLAY FORMATION) Tedulations (WEALD CLAY FORMATION) Tedulations (WEALD CLAY FORMATION) Tedulations (WEALD CLAY FORMATION)  |
| 8 —                 |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | 7.66-7.81 70 degree fracture   |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | planar rough open clean.<br>7.75-7.81 30 degree fracture   |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | planar rough open clean.<br>7.83-8.10 Moderately weak.   |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     | 97             |            |                            |               |                  |               |                  | 8.70 65 degree fracture planar   |
| 9 —                 |              | 8.82 - 9.12                | C 21                               | _  |                              |              |   |               |                      | 8.10 - 9.60         | 97<br>40       |            | Mist flush:<br>8.10 - 9.60 | 100%<br>rec   |                  |               |                  | rough with light grey clay infill<br>(up to 3mm).  |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  |  |
| -<br>- 11 Mar 22    | 0400         | 9.30                       | D 22                               |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  |  |
| 3.00                | 8.10         |                            |                                    |  |                              |              |   |               |                      |                     | $\mid$         |            |                            |               |                  |               |                  | 9.55-9.60 AZCL<br>9.60-9.73 90 degree fracture   |
| - 14 Mar 22<br>0.00 | 2000<br>7.20 |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | planar rough open clean.   |
| 10 —                |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            | I             |                  |               |                  | Hole continues on next sheet 9.85-9.92 15 degree fracture undulating rough with light grey clay infill (up to 0.5mm).  |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               | 10-00            |  |
| General Remarks     |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  | rd Boring / Chiselling Groundwater Entries<br>Depths Duration (mins) Tool No. Depth Remarks Se   |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  |  |
|                     |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  |  |
| <u> </u>            |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               | <u> </u>         |  |
| Notes               | unat -'      | and others if the          |                                    |  | Pro                          | oject        | Gatwick North                             | ern Runwa     | y Project            | (NRP)               |                |            |                            |               |                  |               | Status           | Scale 1:50 Borehole  |
| depths and reduced  | levels in    | metres. Stratu             | is see Key to<br>m thickness gi    | Exploratory Hole Record<br>iven in brackets in depth | s. All                       | oject No.    | D2001-22                                  |               |                      |                     |                |            |                            |               |                  |               |                  | FINAL Printed 22 Jul 2022 14:12:52 BH706   |
|                     |              |                            |                                    |  | Ca                           | rried out fo | VINCI Constru                             | uction T/A Ta | aylor Wo             | odrow               |                |            |                            |               |                  |               |                  | FINAL Printed 22 Jul 2022 14:12:52 BH706<br>© Copyright SOCOTEC UK Limited AGS Sheet 1 of 3  |
| L                   |              |                            |                                    |  |                              |              |   |               |                      |                     |                |            |                            |               |                  |               |                  |  |



| Checked                                 | Dep                      |                                      | Dates                                   |  | Meth                          |                           | Equipment                | Rig Cre             |                            | r Logged                     | Ho           |            | Ca            | sing             |                               | Depth Related Remar   | ks  |  |              | SOCOTEC     |
|---|--------------------------|--------------------------------------|---|--|-------------------------------|---------------------------|--------------------------|---------------------|----------------------------|------------------------------|--------------|------------|---------------|------------------|-------------------------------|---|---|--|--------------|-------------|
|   | 0.00 -                   | - 1.20 09 Ma                         | ar 22 - 10 Mar 22<br>ar 22 - 11 Mar 22  |  | Hand dug ins<br>Cable percuss |                           | Hand tools<br>Dando 3000 | LW/JN<br>BB/BR      |                            | 10 Mar 22<br>10 Mar 22       | Depth        | Dia. (mm)  | Depth<br>1.20 | Dia. (mm)<br>300 | Depth                         | Remarks   |   | Ground Le                              |              | 57.09 mOD   |
| СР                                      |                          |                                      | ar 22 - 16 Mar 22                       |  | Rotary core                   |                           | R70 Comacchio 2          |                     |                            |                              | 2.55<br>4.50 | 200<br>150 | 4.50          | 153              |                               |   |   | Coordinate                             |              | E 527985.27 |
| Approved                                |                          |                                      |   |  |                               |                           |                          |                     |                            |                              | 25.40        | 146        | 25.40         | 146              |                               |   |   | National G                             | rid          | N 141891.91 |
| СР                                      |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              | System      |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| Date                                    | Time                     |                                      | Samples                                 |  |                               | Field Tests               | Samp / Test              | Coring              | TCR %<br>SCR %<br>RQD If   | Water added                  |              | Depth      | Level         | Legend           |                               | Strata Descri   | iption  | -                                      | water        | Backfill    |
| Casing                                  | Water                    | Depth                                | Type & No.                              | Records  | Depth                         | Type Records              | Casing Water             | Depth<br>(Diameter) | RQD If<br>% (mm            | ) Flush details              |              | (Thicknes  |               |                  |                               | Main  | Deta  | il d                                   | Entry        |             |
| 10                                      |                          | 9.92 - 10.22                         | C 23                                    |  |                               |                           |                          |                     |                            |                              |              | (6.1       | 5)            |                  | Extremely to                  | very weak light grey to grey MUDSTONE. Fractu   | de la constante |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          | 9.60 - 10.90        | 100                        | Water flush:<br>9.60 - 10.90 | 20% rec      | (0.1       | 0)            |                  | (10/140/380)                  | / closely to closely spaced locally extremely close<br>planar rough smooth clean or infilled with light g | rey clay (up to planar smooth cle   |  |              |             |
| -                                       |                          | 10.60                                | D 24                                    |  |                               |                           |                          |                     | 100<br>58                  |                              |              |            |               |                  | 3mm).<br>(WEALD CL            | AY FORMATION)   | 10.26-10.52 80 de   | gree fracture                          |              |             |
| -                                       |                          | 10.00                                |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | planar smooth cle<br>10.74-10.85 40 de  | gree fracture                          |              |             |
| 11 -                                    |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | planar rough clea<br>10.85-11.12 90 de  | i closed.<br>gree fracture             |              |             |
| -                                       |                          | 11.12                                | D 25                                    |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | smooth open with<br>clay infill (up to 0.   | rare light grey                        |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     | 100 10                     |                              |              |            |               |                  |                               |   | ciay mini (up to 0.   | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |              |             |
| -                                       |                          |                                      |   |  |                               |                           |                          | 10.90 - 12.40       | 100 10<br>95 140<br>38 380 | Mist flush:                  | 100%         |            |               |                  |                               |   |   |  |              |             |
| -                                       |                          |                                      |   |  |                               |                           |                          |                     | 38 380                     | 10.90 - 12.40                | rec          |            |               |                  |                               |   |   |  |              |             |
| 12 —                                    |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | 12.05-12.15 90 de   |  |              |             |
| -                                       |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | planar rough with<br>infill (up to 0.mm)  |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| 13 —                                    |                          |                                      |   |  |                               |                           |                          |                     | 100                        |                              |              |            |               |                  |                               |   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          | 12.40 - 13.90       | 90                         | Mist flush:                  | 100%         | 13.25      | +43.8         | 4                |                               |   | 13.15-13.25 Dark  |  |              |             |
|   |                          | 10 50                                |   |  |                               |                           |                          |                     | 56                         | 12.40 - 13.90                | rec          |            |               |                  | Fractures are                 | derately weak locally very weak grey to dark grey<br>e 0-10 degrees very closely to closely spaced loc    | ally extremely micaceous calcar   | eous                                   |              |             |
|   |                          | 13.50                                | D 26                                    |  |                               |                           |                          |                     |                            |                              |              |            |               |                  | closely spac<br>grey clay (up | ed (10/170/510) planar rough or smooth clean or   | infilled with light mudstone.   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  | (WEALD CL                     | AY FORMATION)   |   |  |              |             |
| 14 —                                    |                          | 14.04                                | D 27                                    |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| -                                       |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| -                                       |                          |                                      |   |  |                               |                           |                          |                     | 100                        |                              |              |            |               |                  |                               |   | 14.52-14.93 NI st   | f gravelly clay.                       |              |             |
| -                                       |                          |                                      |   |  |                               |                           |                          | 13.90 - 15.40       | 90<br>46                   | Mist flush:<br>13.90 - 15.40 | 100%<br>rec  |            |               |                  |                               |   | Gravel is angular<br>fine to coarse of r  | o subangular<br>udstone.               |              |             |
| 15 —                                    |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| -                                       |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   | <b>r</b> ,                             |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | 15.50-15.70 80 de<br>planar slightly stri   | gree fracture<br>ited smooth           |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | clean closed.<br>15.90-16.15 Becc   | ming brownish                          |              |             |
| 16 —                                    |                          |                                      |   |  |                               |                           |                          | 15.40 - 16.90       | 100                        | Mist flush:                  | 4000/        |            |               |                  |                               |   | grey.   | ning brownion                          |              |             |
|   |                          |                                      |   |  |                               |                           |                          | 15.40 - 10.90       | 45                         | 15.40 - 16.90                | 100%<br>rec  |            |               |                  |                               |   |   |  |              |             |
| _                                       |                          |                                      |   |  |                               |                           |                          |                     | NI                         |                              |              |            |               |                  |                               |   |   |  |              |             |
|   |                          | 16.70                                | D 28                                    |  |                               |                           |                          |                     | 130<br>370                 |                              |              |            |               |                  |                               |   |   |  |              |             |
| 17 —                                    |                          | 17.05                                |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| · · ·                                   |                          | 17.05                                | D 29                                    |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| -                                       |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          | 16.90 - 18.40       | 100<br>100                 | Mist flush:                  | 100%         |            |               |                  |                               |   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     | 100<br>37                  | 16.90 - 18.40                | rec          | (9.1       | 5)            |                  |                               |   |   |  |              |             |
| 18                                      |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | 18.21-18.25 35 de<br>planar rough with  | gree fracture                          |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | light grey clay infi<br>0.5mm).   | (up to                                 |              |             |
|   |                          | 18.60 - 19.00                        | C 30                                    |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | 0.5mm).   |  |              |             |
| 19 —                                    |                          | 10.00 - 19.00                        | 0.30                                    |  |                               |                           |                          |                     | 100                        |                              |              |            |               |                  |                               |   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          | 18.40 - 19.90       | 100<br>100                 | Mist flush:                  | 100%         |            |               |                  |                               |   | 19.15-19.46 40 d  | gree fracture                          |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     | 38                         | 18.40 - 19.90                | rec          |            |               |                  |                               |   | planar rough oper   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | 19.50-19.53 50 de<br>planar rough oper  |  |              |             |
| 15 Mar 22<br>4.50                       | 0430<br>5.10             |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   | grey clay infill (up  |  |              |             |
| 20 — 15 Mar 22                          | 2000                     |                                      |   |  |                               |                           |                          |                     |                            |                              | I            |            |               |                  |                               | Hole continues on next sheet  |   |  |              |             |
| 4.50                                    | 5.10                     |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| General Remarks                         |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  | oring / Chisel<br>epths D     | ling<br>uration (mins) Tool   | Groundwater Entries<br>No. Depth Remarks  |  |              | Sealed      |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               | ,   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |
| Notes                                   |                          |                                      |   |  | Pro                           | oject Gatwick N           | orthern Runway Project ( | (NRP)               |                            |                              |              |            |               | Status           |                               | Scale 1:50  | Boreho  | 9                                      |              |             |
| For explanation of<br>depths and reduce | symbols a<br>d levels ir | and abbreviation<br>n metres. Strati | ons see Key to Exp<br>um thickness give | ploratory Hole Record<br>in in brackets in depth | as. All                       | <b>bject No.</b> D2001-22 |                          | -                   |                            |                              |              |            |               |                  | FIN/                          |   | 4:12:52   |  | BH706        |             |
|   |                          |                                      | ů.                                      |  |                               |                           | struction T/A Taylor Woo | drow                |                            |                              |              |            |               |                  |                               |   | 4:12:52 AGS   |  |              |             |
| L                                       |                          |                                      |   |  | I                             |                           |                          |                     |                            |                              |              |            |               |                  |                               | © Copyright SOCOTE  |   |  | Sheet 2 of 3 |             |
|   |                          |                                      |   |  |                               |                           |                          |                     |                            |                              |              |            |               |                  |                               |   |   |  |              |             |



| $ \frac{1}{1000} = $   | Ch       | necked     | Dep          | oth             | Dates             |                            | Metho         | bd           |                | Equipment            | Rig Cre       | w L       | ogger | Logged        | Но   | ole       | Cas    | ing    |                                |                                       | D               | epth Related Remark       | ks                  |                        |            |              |        | SOCOTEC           |
|--|----------|------------|--------------|-----------------|-------------------|----------------------------|---------------|--------------|----------------|----------------------|---------------|-----------|-------|---------------|------|-----------|--------|--------|--------------------------------|---------------------------------------|-----------------|---------------------------|---------------------|------------------------|------------|--------------|--------|-------------------|
| No.         No. <td></td> <td></td> <td>0.00 -</td> <td>1.20 09 M</td> <td></td> <td></td> <td>Hand dug insp</td> <td>pection pit</td> <td></td> <td>Hand tools</td> <td>LW/JN</td> <td>1</td> <td>MB</td> <td>10 Mar 22</td> <td></td> <td></td> <td></td> <td></td> <td>Depth</td> <td>Remarks</td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   |          |            | 0.00 -       | 1.20 09 M       |                   |                            | Hand dug insp | pection pit  |                | Hand tools           | LW/JN         | 1         | MB    | 10 Mar 22     |      |           |        |        | Depth                          | Remarks                               |                 | •                         |                     |                        |            |              |        |                   |
|  | 1        | CP         |              |                 |                   |                            |               |              |                |                      |               |           |       |               | 4.50 | 150       | 4.50   | 153    |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| Number  | Ap       | proved     |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           | 25.40  |        |                                |                                       |                 |                           |                     |                        | National C | Grid         |        | 141891.91         |
| Note 1         Note 1<  |          |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              | System |                   |
| $ \frac{1}{2} = \frac{1}{2} + 1$ |          | CP         |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| $ \frac{1}{2} = \frac{1}{2} + 1$ |          | Date       | Time         |                 | Samples           | s                          |               | Field Te     | sts            | Samp / Test          | Coring        | TCR %     | ,     | Water added   |      |           |        |        |                                |                                       |                 | Strata Descrir            | ntion               |                        |            |              |        |                   |
|  |          |            |              |                 | •                 |                            |               |              |                |                      | Depth         | RQD       | If    |               |      |           |        | Legend |                                |                                       |                 |                           | ption               |                        |            |              | Bac    | kfill             |
|  | 20 —     | Casing     | Water        | Depth           | Type & No.        | Records                    | Depth         | Туре         | Records        | Casing Water         | (Diameter)    | %         | (mm)  | Flush details |      | (Thicknes | 5)     |        | Weak to mod                    | lerately weak                         |                 |                           | MUDSTONE            |                        |            |              |        |                   |
|  | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        | Fractures are                  | e 0-10 degree                         | es very closely | to closely spaced loca    | ally extremely      |                        | e fracture |              |        |                   |
| 1       10   | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        | closely space<br>grey clay (up | ed (10/170/5 <sup>.</sup><br>to 1mm). | 10) planar roug | gh or smooth clean or i   | infilled with light | 20.20-20.39 Possible   |            |              |        | $\bigcirc$        |
| 1        | -        | 1          |              | 20.60           | D 31              |                            |               |              |                |                      | 19.90 - 21.40 | 100       |       | Mist flush:   | 100% |           |        |        | (WÉALĎ ĊĹA                     | AY FORMAT                             | ION)            |                           |                     |                        |            |              |        | $\bigcirc$        |
|  | -        | 1          |              |                 |                   |                            |               |              |                |                      |               | 87<br>72  |       |               |      |           |        |        |                                |                                       |                 |                           |                     | fine to coarse of mude | stone.     |              |        |                   |
|  | 21 —     | 1          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     | undulating smooth cle  | ean.       |              |        | $\sim$            |
| 1       1/0       0       0       1  | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        | $\sim$            |
|  |          | ]          |              |                 |                   |                            |               |              |                |                      |               | $\vdash$  |       |               |      |           |        |        |                                |                                       |                 |                           |                     | infill (up to 0.5mm).  |            |              |        | $\sim$            |
|  | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 27       1   | -        |            |              | 21.00           | D 22              |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        | $\sim$            |
| 1     2.4  | 22 -     |            |              | 21.50           | 0.52              |                            |               |              |                |                      |               | 100       |       |               |      |           |        |        |                                |                                       |                 |                           |                     | brown silt infill.     | -          |              |        | $\bigcirc$        |
|  |          |            |              |                 |                   |                            |               |              |                |                      | 21.40 - 22.90 | 100<br>94 |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
|  |          |            |              |                 |                   |                            |               |              |                |                      |               |           | -+    |               |      | 22.40     | +34.69 |        |                                |                                       |                 |                           |                     | infill (up to 0.5mm).  |            |              |        | $\sim$            |
|  |          | 4          |              | 22.54 - 22.81   | C 33              |                            |               |              |                |                      |               |           |       |               |      |           |        |        | degrees are i                  | medium space                          | ced (10/270/10  | 060) locally extremely to | to closely          |                        |            |              |        | $\bigcirc$        |
|  |          | -          |              |                 |                   |                            |               |              |                |                      |               | $\square$ |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        | $\sim$            |
| 2.30       0.30   | 23 —     | 1          |              | 22.90 - 23.22   | C 34              | -                          |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 2.30       0.30   |          | 1          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        | $\bigcirc$        |
| 2.30       0.30   |          | -          |              |                 |                   |                            |               |              |                |                      |               | 100       |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        | $\bigcirc$        |
| 24-1         |          | 1          |              | 23.60           | D 35              | -                          |               |              |                |                      | 22.90 - 24.40 | 100       |       |               |      |           |        |        |                                |                                       |                 |                           |                     | 00.77.00.07.5          | 70 4       |              |        | $\sim$            |
| 2 <sup>1</sup> 1         |          | 1          |              |                 |                   |                            |               |              |                |                      |               | 89        | 140   | 22.90 - 24.40 | rec  | (3.0      | 0)     |        |                                |                                       |                 |                           |                     | fracture planar smoot  | h closed.  |              |        | $\sim$            |
|  | 24 —     | -          |              |                 |                   |                            |               |              |                |                      |               |           | 590   |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        | $\bigcirc$        |
|  | -        | -          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     | 23.89-23.99 Possible   | 70 degree  |              |        | $\sim$            |
|  | -        | -          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        | $\sim$            |
| a       b  | -        |            |              |                 |                   |                            |               |              |                |                      |               | 100       |       |               |      |           |        |        |                                |                                       |                 |                           |                     | planar rough clean.    |            |              |        | $\sim$            |
| 1 4 4 4 7 3 450<br>1 4 4 4 7 7 4 5 7 7 7 7 7 7 7 7 7 7 7 7 7   | -        |            |              |                 |                   |                            |               |              |                |                      | 24.40 - 25.40 | 72        |       |               | 100% |           |        |        |                                |                                       |                 |                           |                     |                        | e fracture |              |        | $\langle \rangle$ |
| 1200 3300       1200 3300       100 200 3100       100 200 200 0000 0000       100 4000 200 20000       100 4000 200 20000       100 4000 200 20000       100 4000 200 20000       100 4000 200 20000       100 4000 200 20000       100 40000       100 400000       100 40000       100 40000       100 40000       100 40000       100 40000       100 400000       100 400000       100 400000   | 25 —     | -          |              |                 |                   |                            |               |              |                |                      |               | 72        |       | 24.40 - 25.40 | rec  |           |        |        |                                |                                       |                 |                           |                     | 24.36-24.40 40 degre   | e fracture |              |        | $\sim$            |
| And and a set of an above of the set of above of the set   | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     | 24.48-24.55 30 degre   |            |              |        | $\sim$            |
| and and a second contrast of the seco  | -        |            | 0.00         |                 |                   |                            |               |              |                |                      |               |           |       |               | •    | 25.40     | +31.69 | )      |                                |                                       | END OF EXPLOR   | RATORY HOLE               |                     | planar smooth with lig | n)         |              | 25.40  |                   |
| and  | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     | 24.67-24.95 NI dark g  | rey clayey |              |        |                   |
| are interesting down.mine       Project interesting down.mine       Project interesting down.mine       <  | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        | gravel of  |              |        |                   |
| ard       a  | 26 -     |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        | e fracture |              |        |                   |
| 20   | -        | 1          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     | planar striated clean. |            |              |        |                   |
| 20   | -        | 1          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 20   | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 20   | 27       |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 20       1   | 21       |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 20       1   | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 20       1   | -        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 20       1   | _        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| 20       1   | 28 -     | 1          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| and     and <td><b>_</b></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td>  | <b>_</b> | -          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| and     and <td></td> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td>  |          | 4          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| and     and <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td>  |          | 1          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| and     and <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td>  |          | 1          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| and     and <td>29 -</td> <td>1</td> <td>ļ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td></td>   | 29 -     | 1          | ļ            |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| General Remarks       Hard Boring / Chiselling<br>Depths       Tool       Groundwater Entries<br>No. Depth Remarks       Sealed         Notes       For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>depths and reduced levels in metres. Stratum thickness given in brackets in depth column.       Project No. D2001-22<br>Carried out for       Status       Scale       1:50<br>Printed       Borehole         BH706   |          | 1          | ļ            |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| General Remarks       Hard Boring / Chiselling<br>Depths       Tool       Groundwater Entries<br>No. Depth Remarks       Sealed         Notes       For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>depths and reduced levels in metres. Stratum thickness given in brackets in depth column.       Project No. D2001-22<br>Carried out for       Status       Scale       1:50<br>Printed       Borehole         BH706   |          | 1          |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| General Remarks       Hard Boring / Chiselling<br>Depths       Tool       Groundwater Entries<br>No. Depth Remarks       Sealed         Notes       For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>depths and reduced levels in metres. Stratum thickness given in brackets in depth column.       Project No. D2001-22<br>Carried out for       Status       Scale       1:50<br>Printed       Borehole         BH706   |          | 1          | ļ            |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| General Remarks       Hard Boring / Chiselling<br>Depths       Tool       Groundwater Entries<br>No. Depth Remarks       Sealed         Notes       For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>depths and reduced levels in metres. Stratum thickness given in brackets in depth column.       Project No. D2001-22<br>Carried out for       Status       Scale       1:50<br>Printed       Borehole         BH706   |          |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| General Remarks       Hard Boring / Chiselling<br>Depths       Tool       Groundwater Entries<br>No. Depth Remarks       Sealed         Notes       For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All<br>depths and reduced levels in metres. Stratum thickness given in brackets in depth column.       Project No. D2001-22<br>Carried out for       Status       Scale       1:50<br>Printed       Borehole         BH706   | 30 -     |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| Notes       Status       Scale       1:50       No.       Depths       Borehole  |          |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| Notes       Status       Scale       1:50       No.       Depths       Borehole  | Genera   | al Remarks |              |                 | 1                 |                            | I             | <u> </u>     |                | · ·                  |               | <u> </u>  |       |               |      |           |        | Hard B | oring / Chisell                | ling                                  |                 |                           | Groundwater E       | ntries                 |            | 1            |        | 1                 |
| For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. D2001-22 Printed 22 Jul 2022 14:12:52 Carried out for VINCI Construction T/A Taylor Woodrow BH706  |          |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       | ns)             | Tool                      | No. Depth           | Remarks                |            |              |        | Sealed            |
| For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column. D2001-22 Printed 22 Jul 2022 14:12:52 Carried out for VINCI Construction T/A Taylor Woodrow BH706  | 1        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.<br><b>Project No.</b> D2001-22<br><b>Carried out for</b> VINCI Construction T/A Taylor Woodrow   | 1        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       |                 |                           |                     |                        |            |              |        |                   |
| For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.<br><b>Project No.</b> D2001-22<br><b>Carried out for</b> VINCI Construction T/A Taylor Woodrow   | Nata     |            |              |                 |                   |                            | -             |              |                |                      |               |           |       |               |      |           |        | 04-1   |                                |                                       |                 |                           |                     | Barriel                |            |              |        |                   |
| Project No. D2001-22<br>Garried out for VINCI Construction T/A Taylor Woodrow  |          |            | evmbola -    | and obbroutet   | one see Koute F   | voloratory Holo Decord-    | AII Proj      | ject         | Gatwick Northe | ern Runway Project ( | (NRP)         |           |       |               |      |           |        | Status |                                |                                       | Sc              | cale 1:50                 |                     | Borehole               |            |              |        |                   |
| Carried out for VINCI Construction T/A Taylor Woodrow  | depths   | and reduce | ed levels in | n metres. Strat | um thickness give | en in brackets in depth co | All           |              |                |                      |               |           |       |               |      |           |        |        | FINA                           | AL.                                   | Pri             | rinted 22 Jul 2022 14     | 4:12:52             |                        |            | <b>BH706</b> |        |                   |
| © Copyright SOCOTEC UK Limited Sheet 3 of 3  | 1        |            |              |                 |                   |                            |               | ried out for | VINCI Constru  | ction T/A Taylor Woo | drow          |           |       |               |      |           |        |        |                                |                                       |                 |                           | LIK Limitod         | AGS                    |            |              |        |                   |
|  | L        |            |              |                 |                   |                            |               |              |                |                      |               |           |       |               |      |           |        |        |                                |                                       | C               |                           |                     |                        |            | SHEEL 3 OF 3 |        |                   |



| Che               | cked              | Dep         |                          | Dates                                  |                          | Meth                        | od           |   | Equipme                 |                         |                | ogger       | Logged                 | H             | ole              | Cas                    | ing                 |  | Depth Related Remarks  |  |                    |              | SOCOTEC                           |
|-------------------|-------------------|-------------|--------------------------|--|--------------------------|-----------------------------|--------------|---|-------------------------|-------------------------|----------------|-------------|------------------------|---------------|------------------|------------------------|---------------------|--|--|--|--------------------|--------------|-----------------------------------|
|                   |                   |             |                          | Feb 22 - 28 Feb 2<br>Feb 22 - 03 Mar 2 |                          | Cable percus<br>Rotary core |              | ]                                       | Dando 17<br>R70 Comacch | 5 BB/B<br>o 205 LW/JM/D |                | BP<br>CD    | 25 Feb 22<br>11 Mar 22 | Depth<br>2.00 | Dia. (mm)<br>250 | Depth<br>2.00          | Dia. (mm)<br>250    | ) Depth R                              | Remarks  |  | Ground Lev         |              | 59.37 mOD                         |
|                   | CP                | 4.20 2      | 20.00 20                 |  |                          | riotary con                 | o unining.   |   |                         |                         |                | 00          |                        | 4.20          | 200              | 4.00                   | 200                 |  |  |  | Coordinates        |              | E 528226.99                       |
| Арр               | roved             |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        | 25.00         | 150              | 4.50                   | 150                 |  |  |  | National Gri       | d            | N 141752.78                       |
|                   | CP                |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  |  |                    |              | System                            |
|                   | 51                |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  |  |                    |              |                                   |
|                   | Date              | Time        |                          | Sample                                 | es                       |                             | Field 1      | Tests                                   | Samp / Test             |                         | TCR %<br>SCR % |             | Water added            |               | Depth            | Level                  | Legend              | 1                                      | Strata Description   |  | sel.               | Water        | Backfill                          |
|                   | Casing            | Water       | Depth                    | Type & No.                             | Records                  | Depth                       | Туре         | Records                                 | Casing Wate             | Depth<br>r (Diameter)   | RQD<br>%       | lf<br>(mm)  | Flush details          |               | (Thickness       | )                      |                     |  | Main   | Detail   | chis               | Entry        | _                                 |
|                   | 25 Feb 22         | 0800        | 0.10 - 0.3<br>0.20       | 0 B1<br>D2                             |                          |                             |              |   |                         |                         |                |             |                        |               | (0.30            | ))                     |                     | (TOPSOIL)<br>Soft dark brown           | slightly gravelly CLAY with frequent rootlets. Gravel is   |  |                    |              | Flush cover                       |
|                   | 0.00              | Dry         | 0.30                     | ES 3                                   |                          | 0.30                        | PID          | 0.0 ppmv (Test 1)                       |                         |                         |                |             |                        |               | 0.30             | +59.07                 |                     | angular to subro<br>(MADE GROUN        | ounded fine to medium of flint, chalk and concrete.  |  |                    |              |                                   |
|                   |                   |             | 0.40 - 0.8               | 0 B 4                                  |                          |                             |              |   |                         |                         |                |             |                        |               | (0.70            | ))                     |                     | Firm brown grav                        | velly CLAY. Gravel is angular to subangular fine to coarse of  |  |                    |              | 0.50                              |
| -                 |                   |             | 0.80                     | D 5                                    |                          | 0.90                        | PID          | 0.0 ppmv (Test 2)                       |                         |                         |                |             |                        |               | (0               | -)                     |                     | flint, chalk and b                     | Drick.   |  |                    |              | 22                                |
| 1 —               |                   |             | 0.90<br>1.00 - 1.2       | ES 6<br>0 B 7                          |                          | 0.50                        |              | 0.0 ppinv (rest 2)                      |                         |                         |                |             |                        |               | 1.00             | +58.37                 |                     | X (MADE GROUN                          |  | -  |                    |              | 1.00                              |
|                   |                   |             |                          |  |                          | 1.20 - 1.65                 | SPT S        | N=22 (2,3/4,4,6,8)<br>ID TH59 Er 65%    | 1.20 Dry                |                         |                |             |                        |               |                  |                        |                     | Firm light brown<br>of flint and concr | a gravelly CLAY. Gravel is angular to subangular fine to coarse rete.  |  |                    |              |                                   |
| -                 |                   |             | 1.50                     | D 8                                    | _                        |                             |              |   |                         |                         |                |             |                        |               | (0.90            | ))                     |                     | 8                                      |  | 1.50-1.90 Gravel is ar                             | igular to          |              |                                   |
| -                 | 25 Feb 22         | 0800        | 1.70                     | W 18A                                  | _                        |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     | 8                                      |  | subangular fine to coa<br>Concrete and red bric    |                    | 1 🏹          |                                   |
| 2                 | 28 Feb 22         | 1500        | 1.90 - 2.0<br>2.00 - 2.4 |  | 63 blows 100% rec        | 2.00                        | HV           | p 121kPa, r 46kPa                       |                         |                         |                |             |                        |               | 1.90             | +57.47                 |                     |  | nottled greyish brown CLAY.  | -  |                    |              |                                   |
|                   | 2.00<br>2.00      | 2.00<br>Dry | 2.00 2.4                 |  |                          |                             |              |   | 2.00 Dam                | 0                       |                |             |                        |               |                  |                        |                     | (WEALD CLAY F                          | FORMATION)   |  |                    |              |                                   |
| -                 |                   |             | 2.50                     | D 11                                   |                          | 2.45                        | HV           | p 116kPa, r 44kPa                       |                         |                         |                |             |                        |               | (0.90            | ))                     |                     | -                                      |  |  |                    |              |                                   |
|                   |                   |             | 2.60                     | ES 12                                  |                          | 2.60                        | PID          | 0.0 ppmv (Test 3)                       |                         |                         |                |             |                        |               |                  |                        |                     | -                                      |  |  |                    |              |                                   |
|                   |                   |             | 2.80 - 3.0               |  | -                        |                             |              |   |                         |                         |                |             |                        |               | 2.80             | +56.57                 | × × :-              |  | rey silty CLAY with occasional fine gravel sized calcareous  | 1  |                    |              | • • • • • <mark></mark> • • • • • |
| 3 —               |                   |             | 3.00                     | D 14                                   |                          | 3.00 - 3.45                 | SPT S        | N=50 (4,6/9,10,15,16)<br>ID TH52 Er 53% | 3.00 Dam                | Ŷ                       |                |             |                        |               | (0.60            | 0)                     | ××                  | mudstone.                              | quent fine to coarse sized lithorelicts of extremely weak  |  |                    |              |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               | 3.40             | +55.97                 | $\overline{\times}$ | (WEALD CLAY F                          | ,  | _  |                    | 1 💌          |                                   |
|                   |                   |             | 3.60                     | ES 15                                  | _                        | 3.60                        | PID          | 0.0 ppmv (Test 4)                       |                         |                         |                |             |                        |               | (0.50            |                        |                     | coarse lithorelict                     | nottled brown and reddish brown CLAY with frequent fine to ts of extremely weak mudstone.                                  |  |                    |              |                                   |
| -                 |                   |             | 3.80 - 4.0               |  | _                        | 0.00 4.00                   | SPT S        | 50 (7 40/04 00 fee                      | 0.00 4.70               |                         |                |             |                        |               |                  |                        |                     | (WEALD CLAY F                          | FORMATION)   |  |                    |              |                                   |
| 4 —               |                   |             | 3.90<br>3.90             | D 17<br>D 18                           |                          | 3.90 - 4.20                 | SPIS         | 50 (7,12/21,29 for<br>75mm)             | 3.00 1.70               |                         |                |             |                        |               | 3.90<br>(0.20    | +55.47<br>))<br>+55.27 | ⊢ − -               | Very stiff light gre                   | rey mottled yellowish brown CLAY.  | ]  |                    |              |                                   |
|                   |                   |             |                          |  |                          |                             |              | refusal<br>ID TH52 Er 53%               |                         |                         |                | NA          |                        | 1             | 4.10 (0.10       | +55 17                 |                     |  | light grey mottled light brown MUDSTONE.   | 1  |                    |              |                                   |
| -                 |                   |             |                          |  |                          |                             |              |   |                         |                         | 100            | NA          |                        |               | 4.20 (0.55       | 5)                     |                     | Very stiff yellowis                    | ish brown mottled light grey CLAY.   |  |                    |              |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         | 4.20 - 5.00             | 31<br>31       | NA          |                        |               | 4.75             | +54.62                 |                     | (WÉALD CLAY F                          |  | 4.75-4.80 Medium stro                              | ong light          |              |                                   |
| 5                 |                   |             | 4.90                     | D 18B                                  | _                        |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     | MUDSTONE. Fr                           | ately weak grey to light grey mottled orangish brown fractured racture set 1: 0 degrees closely spaced (40/180/320) planar | grey stained dark redo<br>to black MUDSTONE.       | lish brown         |              |                                   |
| ľ                 |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  | ldish brown staining. Fracture set 2: Randomly orientated (20/100/250) undulating smooth with reddish brown and light      |  |                    |              |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         |                         |                | 20          |                        |               |                  |                        |                     | reddish brown st<br>(WEALD CLAY F      |  |  |                    |              |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         |                         | 100            | 150<br>320  |                        |               | (1.50            | ))                     |                     |  |  | 5.60-5.90 Becomes lig                              | ght                |              | SP                                |
|                   |                   |             |                          |  |                          |                             |              |   |                         | 5.00 - 6.50             | 89<br>78       |             |                        |               |                  |                        |                     |  |  | yellowish grey.<br>5.90-6.00 Becomes gr            | reyish             |              |                                   |
| 6 —               |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  | brown.<br>6.10 Strong grey nodu                    |                    |              | 6.00                              |
|                   | 28 Feb 22         |             | 6.40                     | D 19                                   |                          |                             |              |   |                         |                         | 1 1            |             |                        |               | 6.25             | +53.12                 |                     | Extremely weak                         | to very weak light grey MUDSTONE. Fractures are 0-5  | (60x45x40mm) of calc<br>siltstone.                 | areous             |              |                                   |
|                   | 4.50<br>01 Mar 22 | 0.10 0800   | 0.40                     | 019                                    |                          | 6.50 - 6.81                 | SPT C        | 100 (13,12 for 35mm/28,37,35 for        | 6.50 0.10               |                         | $\vdash$       |             |                        |               |                  |                        |                     | clean.                                 | locally medium spaced (30/800/1330) planar smooth closed   | 6.50-6.80 DD (due to                               |                    |              |                                   |
|                   | 6.50              | 1.90        |                          |  |                          |                             |              | 50mm)                                   |                         |                         |                |             |                        |               |                  |                        |                     | (WEALD CLAY F                          | FORMATION)   | Recovered as very sti<br>6.68-7.33 Becomes re      | ff clay.<br>eddish |              |                                   |
| 7 —               |                   |             |                          |  |                          |                             |              | ID AR1601 Ér 64%                        |                         |                         |                |             |                        |               |                  |                        |                     |  |  | brown.<br>7.00-7.06 90 degrees                     | planar             |              |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         | 6.50 - 8.00             | 100<br>100     |             |                        |               |                  |                        |                     |  |  | closed clean fracture.<br>7.00-7.20 Becoming n     |                    |              |                                   |
| -                 |                   |             | 7.35 - 7.6               | 0 C 20                                 |                          |                             |              |   |                         |                         | 98             |             |                        |               |                  |                        |                     |  |  | strong to strong muds<br>7.20 0 degrees planar     | tone.              |              |                                   |
|                   |                   |             | 7.70                     | D 21                                   |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  | clean fracture.                                    |                    |              |                                   |
| 8 -               |                   |             |                          |  |                          | 8.00 - 8.17                 | SPT C        | 100 (25 for                             | 8.00 0.90               |                         |                | 10          |                        |               |                  |                        |                     |  |  | 7.77-8.00 Stiff grey gr<br>with occasional fine to | coarse             |              |                                   |
|                   |                   |             |                          |  |                          | 0.00 - 0.17                 |              | 75mm/73,27 for<br>15mm)                 | 0.00 0.90               |                         |                | 210<br>1060 |                        |               |                  |                        |                     |  |  | gravel sized lithorelict<br>extremely weak muds    |                    |              |                                   |
|                   |                   |             |                          |  |                          |                             |              | ID AR1601 Er 64%                        |                         |                         |                | 1000        |                        |               |                  |                        |                     |  |  | 8.40-8.80 Becoming n                               | nedium             |              |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         | 0.00.0.55               | 100            |             |                        |               | (4.75            | 5)                     |                     |  |  | strong.<br>8.55-8.64 45 degree f                   |                    |              |                                   |
|                   |                   |             | 8.90                     | D 22                                   | _                        |                             |              |   |                         | 8.00 - 9.50             | 100<br>97      |             |                        |               |                  |                        |                     |  |  | planar rough open infi<br>light brown clay (<3m    | lled with<br>n).   |              |                                   |
| 9 —               |                   |             | 9.01 - 9.3               |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  | 8.80-9.00 Extremely of<br>spaced thin laminae of   | losely             |              |                                   |
|                   |                   |             | 0.01 - 0.0               |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  | siltstone.<br>9.30-9.40 30 degrees                 |                    |              |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         |                         | $\vdash$       |             |                        |               |                  |                        |                     |  |  | rough open infilled wit                            | h dark             |              |                                   |
| -                 |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  | grey clay (<3mm) frac<br>9.40-9.66 Medium stro     | ong                |              |                                   |
| 10 -              |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        | I             |                  |                        |                     |  | Hole continues on next sheet   | mudstone.  |                    |              |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  |  |                    |              |                                   |
| Genera            | Remarks           |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     | Boring / Chiselling<br>Depths Dura     | g Groundwater E<br>ation (mins) Tool No. Depth   |  |                    |              | Sealed                            |
|                   |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  | Rose to 1.70 m after 20 r                          | ninutes. Medium    | inflow       |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  | I  |  |                    |              |                                   |
| Netro             |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        | 04-4                |  | I  | Barrhalt   |                    |              |                                   |
| Notes<br>For expl | anation of e      | vmhols a    | and abbrevia             | itions see Key to F                    | Exploratory Hole Records | s. All Pro                  | oject        | Gatwick Northe                          | rn Runway Proje         | ct (NRP)                |                |             |                        |               |                  |                        | Status              |  | Scale 1:50   | Borehole   |                    |              |                                   |
| depths a          | nd reduced        | levels in   | n metres. Str            | atum thickness giv                     | ven in brackets in depth | column. Pro                 | oject No.    | D2001-22                                |                         |                         |                |             |                        |               |                  |                        |                     | FINAL                                  | Printed 22 Jul 2022 14:12:53   |  | E                  | BH708        |                                   |
|                   |                   |             |                          |  |                          | Ca                          | rried out fo | or VINCI Construct                      | tion T/A Taylor V       | loodrow                 |                |             |                        |               |                  |                        |                     |  | © Copyright SOCOTEC UK Limited   | AGS  | :                  | Sheet 1 of 3 |                                   |
|                   |                   |             |                          |  |                          |                             |              |   |                         |                         |                |             |                        |               |                  |                        |                     |  |  |  |                    |              |                                   |



| Checked             | De             |               | Dates                                |                        | Meth         | od                          | Equipment                  | Rig Crev        |                | er Logged        | н            | lole       | Ca           | sing         |                           |                        | Depth Related Ren   | narks                       |  |                    |                | SOCOTEC     |
|---------------------|----------------|---------------|--------------------------------------|------------------------|--------------|-----------------------------|----------------------------|-----------------|----------------|------------------|--------------|------------|--------------|--------------|---------------------------|------------------------|---|-----------------------------|--|--------------------|----------------|-------------|
|                     | 0.00           | - 4.20 25 Fe  | b 22 - 28 Feb 22<br>b 22 - 03 Mar 22 |                        | Cable percus |                             | Dando 175<br>R70 Comacchio | BB/BR           | BP             | 25 Feb 22        | Depth        | Dia. (mm)  | Depth        | Dia. (mm)    | Depth                     | Remarks                | -   |                             |  | Ground Level       |                | 59.37 mOD   |
| CP                  | 4.20 -         | 20.00 20 Fe   | 5 22 - US Mar 22                     |                        | Rotary core  | s animiy.                   |                            | 203 LVV/JIVI/DS | uro U          |                  | 2.00<br>4.20 | 250<br>200 | 2.00<br>4.00 | 250<br>200   |                           |                        |   |                             |  | Coordinates        |                | E 528226.99 |
| Approved            | -              |               |                                      |                        |              |                             |                            |                 |                |                  | 25.00        | 150        | 4.50         | 150          |                           |                        |   |                             |  | National Grid      | 1              | N 141752.78 |
| Approved            |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             |  |                    |                | System      |
| CP                  |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             |  |                    |                |             |
| Date                | Time           |               | Samples                              | 1                      |              | Field Tests                 | Samp / Test                | Coring          | TCR %          | Water added      |              |            |              | <u> </u>     |                           | 1                      | Strata Des  | arintian                    |  | •,                 |                |             |
| Date                | Time           |               |                                      |                        |              |                             |                            | Depth           | SCR %<br>RQD I | F                |              | Depth      | Level        | Legend       |                           |                        |   | scription                   |  | lisel              | Water<br>Entry | Backfill    |
| 10 Casing           | Water          | Depth         | Type & No.                           | Records                | Depth        | Type Records                | Casing Water               | (Diameter)      | % (m           | n) Flush details |              | (Thicknes  | s)           |              | Eutern !                  | aak ta waan ku         |   | turos or 0.5                | Detail   |                    |                |             |
|                     |                |               |                                      |                        |              |                             |                            | 9.50 - 11.00    |                |                  |              |            |              |              |                           |                        | ght grey MUDSTONE. Frac<br>spaced (30/800/1330) plar          |                             | 9.57-9.75 Extremely c<br>very closely spaced 0   | degrees            |                |             |
|                     |                |               |                                      |                        |              |                             |                            | 9.50 - 11.00    | 100            |                  |              |            |              |              | clean.                    | AY FORMATION)          |   |                             | planar smooth closed clean fractures.            |                    |                |             |
|                     |                | 10.40 - 10.70 | C 24                                 |                        |              |                             |                            |                 | 100<br>75      |                  |              |            |              |              |                           |                        |   |                             | 9.69-9.80 70 degrees                             |                    |                |             |
| -                   |                | 10.80         | D 25                                 |                        |              |                             |                            |                 | 15             |                  |              |            |              |              |                           |                        |   |                             | smooth closed clean f<br>9.84-9.95 80 degrees    |                    |                |             |
| 11 -                |                |               |                                      |                        |              |                             |                            |                 |                | _                |              | 11.00      | +48.3        | 7            |                           |                        |   |                             | smooth closed clean f                            | fractures.         |                |             |
| -                   |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              | spaced thinly             | / laminated fracture   | rey to grey extremely close<br>ed MUDSTONE. Laminae o         | of light grey               | 10.15-10.23 25 degree<br>undulating smooth op    |                    |                |             |
| -                   |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        | very close to closely spaced<br>lanar smooth or rough close   |                             | with dark grey clay (<                           |                    |                |             |
| -                   |                |               |                                      |                        |              |                             |                            |                 | 100            |                  |              |            |              |              |                           | AY FORMATION)          |   | ed of open clean.           | 10.17-20.28 Possible                             | DD. Core           |                |             |
| -                   |                |               |                                      |                        |              |                             |                            | 11.00 - 12.50   | 100 10         |                  |              | (1.7       | 70)          |              |                           |                        |   |                             | recovered as clayey a<br>sub angular fine to cos |                    |                |             |
| 12 -                |                | 12.00         | D 26                                 |                        |              |                             |                            |                 | 33 10<br>24    | 0                |              | (1.7       | 0)           |              |                           |                        |   |                             | gravel of mudstone.                              |                    |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 10.78 0 degrees plana<br>open clean fracture.    | ar smooth          |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 11.00-11.06 80 degree                            |                    |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | rough open clean frac<br>11.00-11.24 Medium s    | strong.            |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                | -                |              | 12.70      | +46.6        | 7            | Weak to mod               | derately weak grey     | to dark grey fractured MUE                                    | OSTONE. Fracture            | 11.35 1 number lens o                            | of light           |                |             |
| 13 —                |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              | set 1: 0-10 d             | egrees very closely    | y to closely (locally extreme<br>en or closed clean. Fracture | ly closely) spaced          | grey silt (70x70x10mn<br>11.65-11.79 85 degree   |                    |                |             |
|                     |                |               |                                      |                        |              |                             |                            | 10.50 44.00     | 100            |                  |              |            |              |              | degrees plar              | har smooth closed      | clean.  | 5 501 £. 00-00              | smooth closed clean f                            | fracture.          |                |             |
|                     |                |               |                                      |                        |              |                             |                            | 12.50 - 14.00   | 90<br>77       |                  |              |            |              |              | (WEALD CL                 | AY FORMATION)          |   |                             | 12.18-12.28 60 degree<br>smooth closed clean f   | fracture.          |                |             |
|                     |                | 13.50         | D 27                                 |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 12.46-12.50 45 degree<br>rough closed clean fra  | es planar          |                |             |
| -<br>- 01 Mar 22    | 1733           | 13.56 - 13.80 | C 28                                 |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | (possibly striated/polis                         | shed)              |                |             |
| 14 14.00            | 0.95           |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 12.50-12.70 DD recov<br>very stiff clay.         | /ered as           |                |             |
| - 02 Mar 22<br>4.50 | 2 0730<br>2.20 |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 12.71 2 possibly clays                           |                    |                |             |
| 4.50                | 2.20           |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | nodules (60x60x15mn<br>12.71-12.80 90 degree     |                    |                |             |
| _                   |                |               |                                      |                        |              |                             |                            |                 | 100            | Water flush:     | 100%         |            |              |              |                           |                        |   |                             | rough open clean frac                            | ture               |                |             |
| -                   |                |               |                                      |                        |              |                             |                            | 14.00 - 15.50   | 100<br>100     | 4.20 - 25.00     | rec          |            |              |              |                           |                        |   |                             | 12.75 0 degrees plana<br>open clean fracture.    | ar smooth          |                |             |
| 15                  |                | 14.69 - 15.00 | C 29                                 |                        |              |                             |                            |                 | 58             |                  |              |            |              |              |                           |                        |   |                             | 12.80 0 degrees plana                            | ar smooth          |                |             |
| 15                  |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | open clean fracture.<br>12.80-13.10 80 degree    | es planar          |                |             |
|                     |                | 15.40         | D 30                                 |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | smooth open clean fra<br>12.84-12.95 40 degree   | acture.            |                |             |
| -                   |                | 15.40         | 0.30                                 |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | smooth open infilled w                           | vith dark          |                |             |
| -                   |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | grey clay (<3mm) frac<br>12.85-13.25 Strong gr   | ture.              |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | brown (possibly) limes                           | stone.             |                |             |
| 16 —                |                |               |                                      |                        |              |                             |                            |                 | 100            |                  |              |            |              |              |                           |                        |   |                             | 13.12-13.15 15 degree<br>smooth open clean fra   |                    |                |             |
| -                   |                |               |                                      |                        |              |                             |                            | 15.50 - 17.00   | 100 N<br>90 16 |                  |              |            |              |              |                           |                        |   |                             | 13.19-13.22 15 degree                            | es planar          |                |             |
| _                   |                |               |                                      |                        |              |                             |                            |                 | 99             |                  |              |            |              |              |                           |                        |   |                             | smooth open clean fra<br>13.38-13.48 90 degree   |                    |                |             |
| -                   |                | 40.00         |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | smooth open clean fra                            | acture.            |                |             |
|                     |                | 16.80         | D 31                                 |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 13.88-13.91 15 degree<br>smooth closed clean f   | fracture.          |                |             |
| 17 —                |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 14.29-14.41 90 degree<br>smooth open clean fra   |                    |                |             |
| -                   |                | 17.21 - 17.46 | C 32                                 |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 16.01-16.05 30 degree                            | es planar          |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | rough open clean frac<br>16.06-16.08 10 degree   | ture.              |                |             |
|                     |                |               |                                      |                        |              |                             |                            | 17.00 - 18.50   | 100<br>93      |                  |              |            |              |              |                           |                        |   |                             | smooth open infilled w                           | vith dark          |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 | 69             |                  |              |            |              |              |                           |                        |   |                             | grey clay (<3mm) frac<br>16.13-16.31 70 degree   |                    |                |             |
| 18 —                |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | undulating rough oper                            | n infilled         |                |             |
|                     |                | 10.10         |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | with light grey silt (<3r<br>fracture.           |                    |                |             |
|                     |                | 18.40         | D 33                                 |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 16.67-16.74 90 degree<br>smooth open clean fra   |                    |                |             |
| -                   |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | 16.72-16.74 20 degree                            | es planar          |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              | (12        | .30)         |              |                           |                        |   |                             | rough open clean frac<br>16.90-16.98 70 degree   | ture.<br>es planar |                |             |
| 19 —                |                |               |                                      |                        |              |                             |                            |                 | 100            |                  |              |            |              |              |                           |                        |   |                             | rough open clean frac                            | ture.              |                | $\sim$      |
|                     |                |               |                                      |                        |              |                             |                            | 18.50 - 20.00   | 100            |                  |              |            |              |              |                           |                        |   |                             | 18.08-18.15 NI, extrer<br>closely spaced randor  |                    |                |             |
| -                   |                | 19.50         | D 34                                 |                        |              |                             |                            |                 | 95             |                  |              |            |              |              |                           |                        |   |                             | orientated planar smo                            | oth open           |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | and closed fractures.<br>18.60-18.90 Becomes     |                    |                |             |
|                     |                | 19.65 - 20.00 | C 35                                 |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             | strong.  |                    |                |             |
| 20 —                |                |               |                                      |                        |              |                             |                            |                 |                |                  | 1            |            |              |              |                           | Hole                   | e continues on next sheet                                     |                             | 18.90-19.00 60 degree<br>rough open clean frac   | es planar<br>ture. |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              | <u> </u>     | <br>                      | 11                     |   |                             |  |                    |                |             |
| General Remarks     | 6              |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              | oring / Chisel<br>epths D | ling<br>uration (mins) | Tool  | Groundwater Er<br>No. Depth |  |                    |                | Sealed      |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              | <sup>`</sup> | -p5 D                     |                        | 1001  | ito. Depui i                |  |                    |                | Jealeu      |
| 1                   |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             |  |                    |                |             |
|                     |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        |   |                             |  |                    |                |             |
| Notes               |                |               |                                      |                        |              |                             | _                          |                 |                |                  |              |            |              | Status       |                           |                        |   | •                           | Borehole   |                    |                |             |
|                     |                |               |                                      | ploratory Hole Record  | IS. All      | -                           | ern Runway Project         | (NRP)           |                |                  |              |            |              |              |                           |                        | Scale 1:50  | 0 4 4 4 5 7 5               |  | -                  | 11700          |             |
|                     |                |               |                                      | n in brackets in depth | column. Pro  | bject No. D2001-22          |                            |                 |                |                  |              |            |              |              | FIN/                      | 4L                     | Printed 22 Jul 202  | 2 14:12:53                  | AGS  | B                  | H708           |             |
|                     |                |               |                                      |                        | Car          | rried out for VINCI Constru | iction T/A Taylor Wo       | odrow           |                |                  |              |            |              |              |                           |                        | © Copyright SOCO  | TEC UK Limited              | AGS  | Sh                 | heet 2 of 3    |             |
| <b></b>             |                |               |                                      |                        |              |                             |                            |                 |                |                  |              |            |              |              |                           |                        | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,                       | -                           | <u> </u>   |                    |                |             |



| Chec                     | ked                     | Dep                     |                                       | Dates                                  |  | Metho                        |               |               | Equipment                    | Rig Cre         |                       | ger | Logged                 | Но            | ole              | Cas           | ing              |                               | Depth Rela  | ted Remarks                |   |                             |              | SOCOTEC                    |
|--------------------------|-------------------------|-------------------------|---------------------------------------|--|--|------------------------------|---------------|---------------|------------------------------|-----------------|-----------------------|-----|------------------------|---------------|------------------|---------------|------------------|-------------------------------|---|----------------------------|---|-----------------------------|--------------|----------------------------|
|                          |                         | 0.00 -<br>4.20 -        | 4.20 25 Feb<br>25.00 28 Feb           | o 22 - 28 Feb 22<br>o 22 - 03 Mar 22   |  | Cable percuss<br>Rotary core |               |               | Dando 175<br>R70 Comacchio 2 | BB/BR           | B                     | P 1 | 25 Feb 22<br>11 Mar 22 | Depth<br>2.00 | Dia. (mm)<br>250 | Depth<br>2.00 | Dia. (mm)<br>250 | Depth                         | Remarks   |                            |   | Ground Lev                  |              | 59.37 mOD                  |
| CF                       | ,                       |                         |                                       |  |  |                              | 9-            |               |                              |                 |                       |     |                        | 4.20          | 200              | 4.00          | 200              |                               |   |                            |   | Coordinates<br>National Gri |              | E 528226.99<br>N 141752.78 |
| Appro                    | ved                     |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        | 25.00         | 150              | 4.50          | 150              |                               |   |                            |   | National Gri                |              | N 141752.78<br>System      |
| CF                       | ,                       |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              | oystem                     |
|                          |                         | L                       |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          | Date                    | Time                    |                                       | Samples                                |  |                              | Field Test    | ts            | Samp / Test                  | Coring<br>Depth | TCR %<br>SCR %<br>RQD | Wa  | ter added              |               | Depth            | Level         | Legend           |                               | St  | rata Description           |   | sel.                        | Water        | Backfill                   |
| 20                       | asing                   | Water                   | Depth                                 | Type & No.                             | Records  | Depth                        | Туре          | Records       | Casing Water                 | (Diameter)      | % (n                  |     | ush details            |               | (Thickness       | )             |                  |                               | Main  |                            | Detail  | Chi                         | Entry        |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  | set 1: 0-10 de                | derately weak grey to dark grey fractu<br>egrees very closely to closely (locally | extremely closely) spaced  | 19.15-19.45 Becomes strong.                           |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  | (10/120/330)<br>degrees plana | planar smooth open or closed clean.<br>ar smooth closed clean.                    | Fracture set 2: 80-90      | 19.35-19.40 20 degree<br>smooth open clean fra        | acture.                     |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 | 97                    |     |                        |               |                  |               |                  | (WEALD CL                     | AY FORMATION)   |                            | 20.17-20.20 15 degree<br>rough open infilled wit      | es planar<br>b dark         |              |                            |
| -                        |                         |                         | 20.72 - 21.03                         | C 36                                   |  |                              |               |               |                              | 20.00 - 21.50   | 97<br>91              |     |                        |               |                  |               |                  |                               |   |                            | grey clay (<3mm) frac<br>20.69-20.72 30 degree        | ture.                       |              |                            |
| 21 —                     |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | smooth open fracture<br>20.70-21.24 Becomes           | es planar<br>(clean).       |              |                            |
| -                        |                         |                         | 21.35                                 | D 37                                   |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | strong  | s medium                    |              |                            |
| _                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | 21.45-21.50 AZCL.                                     |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| 22 —                     |                         |                         | 21.90                                 | D 38                                   |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              | 21.50 - 23.00   | 100<br>87             |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         | 22.40                                 | D 39                                   |  |                              |               |               |                              |                 | 80                    |     |                        |               |                  |               |                  |                               |   |                            | 22.35-22.50 Possible<br>fracture zone. Core re        |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | as stiff to very stiff gra<br>Gravel is angular to su | velly clay.                 |              |                            |
|                          | Mar 22<br>50            | 1730<br>2.80            | 22.70 - 23.00                         | C 40                                   |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | fine to coarse of muds<br>22.50-22.70 NI              | stone.                      |              |                            |
| - 03                     |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | 22.70-22.75 60 degree                                 | es planar                   |              |                            |
| _ 4.                     | 50                      | 2.80                    |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | smooth open clean fra<br>23.06-23.15 2 no 30 d        | legrees                     |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 | 100                   |     |                        |               |                  |               |                  |                               |   |                            | planar smooth and ro<br>infilled with dark grey       | ough                        |              |                            |
| -                        |                         |                         | 23.64 - 24.04                         | C 41                                   |  |                              |               |               |                              | 23.00 - 24.50   | 100<br>87             |     |                        |               |                  |               |                  |                               |   |                            | (<3mm) fractures.                                     |                             |              |                            |
| 24 —                     |                         |                         |                                       |  |  |                              |               |               |                              |                 | 01                    |     |                        |               |                  |               |                  |                               |   |                            | 23.21-23.32 50 degree<br>smooth infill (4mm) wi       | th firm                     |              |                            |
| -                        |                         |                         | 24.20                                 | D 42                                   |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | dark gray clay.<br>23.46-23.63 60 degree              | es planar                   |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | closed fracture.<br>24.01-24.04 15 degree             | es planar                   |              |                            |
|                          | Mar 22                  | 1720                    |                                       |  |  |                              |               |               |                              | 24.50 - 25.00   | 80<br>80              |     |                        |               |                  |               |                  |                               |   |                            | smooth stained light b fracture.                      |                             |              |                            |
| 25 4.                    | 50 SO                   | 7.20                    | 24.87                                 | D 43                                   |  |                              |               |               |                              |                 | 80                    |     |                        |               | 25.00            | +34.37        |                  |                               | END OF EXPLORATORY HOL  | r                          | 24.29-24.40 60 degree<br>rough infilled with blac     | es planar<br>sk clav        |              | 25.00                      |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               | END OF EXPLORATORY HOL  | E                          | (<3mm).<br>24.35-24.50 60 degree                      | -                           |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | rough infilled with blac                              | es planar<br>ck clay        |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | (<3mm) fracture.<br>24.90-25.00 AZCL                  |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| 26 _                     |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| 27 —                     |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| 28 —                     |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| -                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| 29 —                     |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| 30 —                     |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
| General F                | emarks                  |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  | pring / Chisell<br>pths Du    | ling<br>uration (mins) Tool   | Groundwater E<br>No. Depth |   |                             |              | Sealed                     |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  | -p                            |   | No. Deptil                 |   |                             |              | Sealeu                     |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            |   |                             |              |                            |
|                          |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               |   |                            | •   |                             |              |                            |
| Notes                    |                         |                         |                                       |  |  | Pro                          | oject         | Gatwick North | ern Runway Project (         | NRP)            |                       |     |                        |               |                  |               | Status           |                               | Scale 1:  | 50                         | Borehole  |                             |              |                            |
| For explander depths and | ation of s<br>d reduced | ymbols a<br>I levels in | and abbreviation<br>n metres. Stratur | ns see Key to Exp<br>m thickness giver | bloratory Hole Records<br>n in brackets in depth | S. All                       | oject No.     | D2001-22      |                              | -               |                       |     |                        |               |                  |               |                  | FINA                          |   |                            |   | E                           | SH708        |                            |
|                          |                         |                         |                                       | -                                      |  |                              | rried out for | VINCI Constru | ction T/A Taylor Woo         | drow            |                       |     |                        |               |                  |               |                  |                               |   | t SOCOTEC UK Limited       | AGS   |                             | Sheet 3 of 3 |                            |
| L                        |                         |                         |                                       |  |  |                              |               |               |                              |                 |                       |     |                        |               |                  |               |                  |                               | e copyligh  | - 500. LO ON LININGU       |   |                             |              |                            |



| Checked               | Dep           |                     | Dates              |                          | Metho         |                          |                   | Equipment           |                 |                       | Logger | Logged      | Но    |           | Casir   |           |                           |                                | Depth            | Related Remarks   |                     |              |              |             | SOCOTEC                |
|-----------------------|---------------|---------------------|--------------------|--------------------------|---------------|--------------------------|-------------------|---------------------|-----------------|-----------------------|--------|-------------|-------|-----------|---------|-----------|---------------------------|--------------------------------|------------------|---|---------------------|--------------|--------------|-------------|------------------------|
|                       | 0.00 -        | - 0.55 28 M         | ar 22 - 29 Mar 22  |                          | Hand dug insp | pection pit.             |                   | Hand tools          | JT/C            | ЭН                    | BP 2   | 28 Mar 22   | Depth | Dia. (mm) | Depth I | Dia. (mm) | Depth                     | Remarks                        |                  |   |                     | Ground       |              |             | 55.66 mOD              |
| СР                    |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     | Coordin      |              |             | 527555.28<br>142539.95 |
| Approved              |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     | Nationa      | li Gria      | N<br>System | 142539.95              |
| СР                    |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              | System      |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| Date                  | Time          |                     | Samples            |                          |               | Field Tes                | sts               | Samp / Test         | Coring<br>Depth | TCR %<br>SCR %<br>RQD | Wat    | ter added   |       | Depth     | Level   | Legend    |                           |                                |                  | Strata Description  |                     |              | water        | Bac         | kfill                  |
| 0 Casing              | Water         | Depth               | Type & No.         | Records                  | Depth         | Туре                     | Records           | Casing Water        | (Diameter)      | RQD<br>%              | Flu    | ish details |       | (Thicknes | s)      |           |                           |                                | Main             |   | Deta                | ail          | 은 Entry      |             |                        |
| - 28 Mar 22<br>- 0.00 | 2 2000<br>Dry | 0.10                | D1                 | -                        |               |                          |                   |                     |                 |                       |        |             |       |           |         |           | (MADE GRO<br>Dark brown o | OUND)<br>gravelly slightly cla | ayey fine to coa | arse SAND with low cobble   |                     |              |              |             |                        |
| 29 Mar 22             | 2 0400        | 0.30 - 0.50<br>0.30 | B 3<br>ES 2        |                          | 0.30          | PID                      | 0.0 ppmv (Test 1) |                     |                 |                       |        |             |       | (0.5      | 5)      |           | content. Grav             | vel is angular to su           | ubangular fine t | arse SAND with low cobble<br>to coarse of red brick, con<br>50x150x150mm) of concre |                     |              |              |             |                        |
| - 0.00                | Dry           |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       | 0.55      | +55.11  | ********  | whole bricks.             |                                | OF EXPLORATOR    |   | 0.55 8 inch cast in | ron service. |              | 0.55        |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           | 210                            |                  |   |                     |              |              |             |                        |
| 1 —                   |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| _                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 2 —                   |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| _                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 2                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| ]                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 4 —                   |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 5 —                   |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| _                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 6 —                   |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 7 —                   |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 8 —                   |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 9 —                   |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| -                     |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| 10 —                  |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| General Remarks       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         | Hard P    | oring / Chisel            | lina                           |                  | Ground  | water Entries       |              |              |             |                        |
|                       |               | nated at 0.55m      | due to service ob  | struction.               |               |                          |                   |                     |                 |                       |        |             |       |           |         |           | epths D                   | uration (mins)                 | То               | ol No. I  | Depth Remarks       |              |              |             | Sealed                 |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |
| Notes                 |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         | Status    |                           |                                |                  | 1   | Boreho              | le           |              |             |                        |
| For explanation of    | f symbols a   | and abbreviation    | ons see Key to Exp | oloratory Hole Records   | . All         | ject                     |                   | ern Runway Project  | (NRP)           |                       |        |             |       |           |         |           |                           |                                | Scale            |   |                     |              |              |             |                        |
| depths and reduce     | ed levels ir  | n metres. Strat     | um thickness giver | n in brackets in depth o | column. Proj  | ject No.<br>riod out for | D2001-22          | ction T/A Text 14   | odrow           |                       |        |             |       |           |         |           | FINA                      | ۹L                             |                  | 22 Jul 2022 14:12:53  | ted AGS             |              | BH2001       |             |                        |
|                       |               |                     |                    |                          | Car           | ried out for             | VINCI Construc    | ction T/A Taylor Wo | JULIOW          |                       |        |             |       |           |         |           |                           |                                | © Copy           | yright SOCOTEC UK Limi  | ted AGS             |              | Sheet 1 of 1 |             |                        |
|                       |               |                     |                    |                          |               |                          |                   |                     |                 |                       |        |             |       |           |         |           |                           |                                |                  |   |                     |              |              |             |                        |



| Checked                          | Dep<br>0.00 - | pth<br>- 1.20 29 Mar                      | Dates<br>22 - 29 Mar 22  |                          | Metho<br>Hand dug insp       |                         |   | Equipmen<br>Hand tool   | v            |                       | <b>.ogger</b><br>BP | Logged<br>29 Mar 22          |               | ole<br>Dia. (mm)       | Cas<br>Depth | ng<br>Dia. (mm) | Depth  | Depth Related Remarks<br>Remarks   |   | Ground Le        | vel            | 56.82 mOD             |
|----------------------------------|---------------|---|--------------------------|--------------------------|------------------------------|-------------------------|---|-------------------------|--------------|-----------------------|---------------------|------------------------------|---------------|------------------------|--------------|-----------------|--|--|---|------------------|----------------|-----------------------|
| CP                               | 1.20 -        | - 4.70 29 Mar<br>20.10 30 Mar             | 22 - 29 Mar 22           |                          | Cable percusi<br>Rotary core | ion drilling.           |   | Dando 17<br>R70 Comacch | 5 JT/D       | н                     | BP<br>NH            | 29 Mar 22<br>01 Apr 22       | 4.70<br>20.10 | 200<br>150             | 4.70<br>5.00 | 200<br>150      | _ op   |  |   | Coordinate       |                | E 527458.35           |
| Approved                         |               |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 |  |  |   | National G       | rid            | N 142505.81<br>System |
| СР                               |               |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 |  |  |   |                  |                |                       |
| Date                             | Time          | Donth                                     | Samples                  |                          | Donth                        | Field 1                 |   | Samp / Test             | Depth        | TCR %<br>SCR %<br>RQD | If                  | Water added<br>Flush details |               | Depth                  | Level        | Legend          |  | Strata Description<br>Main   | Deteil  | hisol            | Water<br>Entry | Backfill              |
| 0 Casing<br>29 Mar 22            | 0800<br>Drv   | 0.10<br>0.10 - 0.20                       | Type & No.<br>D 1<br>B 2 | Records                  | Depth                        | Туре                    | Records   | Casing Wate             | r (Diameter) | %                     | (mm)                | Flush details                |               | (Thickness<br>(0.20    | -            |                 | (TOPSOIL)<br>Firm dark bro                   | wann own slightly gravelly slightly sandy CLAY with rare pockets   | Detail  |                  |                | Flush cover           |
|                                  | Diy           | 0.30 - 0.60<br>0.30                       | B 4<br>ES 3              |                          |                              |                         |   |                         |              |                       |                     |                              |               | (0.75                  |              |                 | (50x50x50mr                                  | m) of firm light brown clay. Sand is fine to coarse. Gravel is<br>fine of brown flint and rare chalk.  |   |                  |                | 0.50                  |
|                                  |               | 0.70<br>0.80                              | D 5<br>ES 6              | -                        |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 | Firm light bro<br>decaying woo               | wwn mottled yellowish brown CLAY with frequent rootlets,<br>wd (2mm) and occasional pockets (20x10x10mm) of dark grey                        |   |                  |                |                       |
|                                  |               | 0.95 - 1.20<br>1.00<br>1.10               | B 7<br>D 8<br>ES 9       |                          | 1.20 - 1.65                  | SPT S                   | N=6 (1,1/1,1,2,2)                                 | Dry                     |              |                       |                     |                              |               | 0.95                   | +55.88       |                 |  | wn mottled grey sandy silty CLAY with frequent plant remains   |   |                  |                |                       |
|                                  |               | 1.20<br>1.20 - 1.65<br>1.50               | D 10<br>B 11<br>ES 12    |                          |                              |                         | ID BHDS06 Er 61%                                  |                         |              |                       |                     |                              |               | 1.60                   | +55.22       |                 |  | Sand is fine to coarse.  |   |                  |                | 1.50                  |
|                                  |               | 0.00                                      | D 42                     |                          |                              |                         |   |                         |              |                       |                     |                              |               | (0.40                  |              |                 | occasional po                                | ey mottled brown silty CLAY with a strong organic odour and<br>lockets (50x6mm) of black amorphous peat.                                     |   |                  |                |                       |
| 2                                |               | 2.00<br>2.00 - 2.20<br>2.20 - 2.65        | D 13<br>B 14<br>UT 15    | 45 blows 100% rec        |                              |                         |   | 2.00                    |              |                       |                     |                              |               | 2.00                   |              |                 | (MADE GRO<br>Firm orangish<br>pockets (up to | DUND)<br>h brown mottled light grey slightly gravelly CLAY with frequent<br>to 50x50mm) of firm dark grey organic clay. Gravel is angular to |   |                  |                |                       |
|                                  |               | 2.65 - 2.75                               | D 16                     |                          |                              |                         |   |                         |              |                       |                     |                              |               | 2.65                   | +54.18       |                 |  | fine to coarse of siltstone.   | _   |                  |                |                       |
| 3 —                              |               | 2.70<br>2.70 - 3.00<br>3.00               | D 18<br>B 17<br>D 19     |                          |                              |                         |   |                         |              |                       |                     |                              |               | (0.05<br>2.70<br>(0.30 |              |                 | Brown and gr                                 | rey sandy slightly clayey GRAVEL. Sand is fine to coarse. Gravel<br>subrounded fine to coarse of flint and clinker.                          |   |                  |                |                       |
|                                  |               | 3.00 - 3.20<br>3.20 - 3.65<br>3.20 - 3.65 | B 20<br>D 21<br>B 22     |                          | 3.20 - 3.65                  | SPT S                   | N=41 (1,2/8,11,11,11)<br>ID BHDS06 Er 61%         | 2.20 Dry                |              |                       |                     |                              |               | 3.00                   | - /          |                 | Gravel is ang                                | nottled grey slightly sandy gravelly CLAY. Sand is fine to coarse.<br>gular to subrounded fine to coarse of flint and clinker.               |   |                  |                |                       |
|                                  |               | 0.20 - 0.00                               | 0.22                     |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 | brown flint.                                 | nottled grey slightly gravelly CLAY. Gravel is fine to medium of<br>ADE GROUND)  | 3.60 Becoming very s is angular fine of clays                           |                  |                |                       |
| 4                                |               |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               | (1.70                  | 0)           |                 |  |  |   |                  |                |                       |
|                                  |               | 4.20 - 4.65<br>4.20 - 4.65                | D 23<br>B 24             | -                        | 4.20 - 4.54                  | SPT S                   | 50 (3,7/14,23,13 for<br>35mm)<br>ID BHDS06 Er 61% | 2.20 Dry                |              |                       |                     |                              |               |                        |              |                 |  |  | 4.20 Light grey silt.   |                  |                |                       |
| 29 Mar 22<br>2.20<br>- 30 Mar 22 | 4.20          | 4.50<br>4.65 - 5.00                       | ES 25<br>D 26            | -                        |                              |                         |   |                         |              | 100                   |                     |                              | 1             | 4.70                   | +52.12       |                 | Very stiff loca                              | ally stiff grey slightly gravely silty CLAY with medium spaced thick   | 4.60 Becoming grey.   |                  | 1 🛥            |                       |
| 5 - 4.70                         | 4.20          | 5.00                                      | D 27                     | -                        |                              |                         |   |                         | 4.70 - 5.10  | NA<br>NA              |                     |                              |               |                        |              |                 | coarse of ext                                | xtremely weak grey mudstone. Gravel is angular, medium to<br>tremely weak grey mudstone.<br>AY FORMATION)                                    |   |                  |                |                       |
|                                  |               |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 | (  |  | 5.40 Horizontal fissure<br>smooth closed 1mm of                         |                  |                |                       |
|                                  |               |   |                          |                          |                              |                         |   |                         | 5.10 - 6.60  | 100<br>30             | NA                  | Water flush:<br>4.70 - 6.60  | 100%<br>rec   | (0.4)                  |              | <br>            |  |  | 5.44 Horizontal fissure<br>smooth closed 1mm c                          | planar           |                |                       |
| 6                                |               | 5.82 - 6.08                               | C 28                     |                          |                              |                         |   |                         |              | 30                    | NA<br>NA            |                              |               | (2.42                  | 2)           |                 |  |  | 6.08-6.48 Extremely v<br>mudstone.                                      | veak grey        |                |                       |
|                                  |               | 6.40                                      | D 29                     | -                        | 6.60 - 6.77                  | SPT C                   | 100 (25 for                                       | 5.00 Dry                |              |                       |                     |                              |               |                        |              |                 |  |  |   |                  |                |                       |
|                                  |               | 6.90                                      | D 30                     |                          | 0.00 - 0.77                  |                         | 60mm/47,53 for<br>30mm)                           | 0.00 Diy                |              |                       |                     |                              |               |                        |              |                 |  |  |   |                  |                |                       |
| 7 —                              |               | 7.12 - 7.45                               | C 31                     |                          |                              |                         | ID AR1601 Er 64%                                  |                         |              | 100                   |                     |                              |               | 7.12                   | +49.70       |                 |  | rbedded very weak grey MUDSTONE and weak brown<br>. Fractures are 10 degrees closely to widely spaced  | -   |                  |                |                       |
|                                  |               |   |                          |                          |                              |                         |   |                         | 6.60 - 8.10  | 67<br>63              |                     | Water flush:<br>6.60 - 8.10  | 80% rec       |                        |              |                 | (60/600/1040<br>infill.                      | 0) planar smooth with rare polishing very tight with <1mm clay   | 7.52-7.56 45 degree f<br>7.64-7.70 50 degree f                          |                  |                |                       |
| 8 —                              |               | 7.80                                      | D 32                     | -                        |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 | (WEALD CLA                                   | AY FORMATION)  | 7.66 10 degree fractu<br>8.02-8.17 90 degree f                          | e.               |                | SP SP                 |
|                                  |               |   |                          |                          |                              |                         |   |                         |              |                       | 20                  |                              |               |                        |              |                 |  |  | planar smooth closed<br>rare slight polishing.                          |                  |                |                       |
|                                  |               | 8.65                                      | D 33                     | -                        |                              |                         |   |                         |              | 100                   | 380<br>1040         |                              |               | (2.66                  | 6)           |                 |  |  |   |                  |                | 8.50                  |
| 9 —                              |               |   |                          |                          |                              |                         |   |                         | 8.10 - 9.60  | 100<br>100<br>95      |                     |                              |               |                        |              |                 |  |  | 8.78-8.98 Very strong<br>brown fine grained sa<br>9.04 10 degrees fract | ndstone.<br>Jre. |                |                       |
| -<br>-<br>- 31 Mar 22            | 0400          |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 | Verv weak or                                 | rey indistinctly laminated fractured MUDSTONE with rare pockets  | 9.04-9.11 90 degree f<br>undulating smooth tig<br>with rare polishing.  | acture           |                |                       |
| 5.00<br>- 31 Mar 22              | 1.30<br>2000  |   |                          |                          |                              |                         |   |                         |              | $\left  - \right $    |                     | Water flush:<br>8.10 - 11.10 | 70% rec       | 9.78                   | +47.04       |                 | (1x60x5mm)<br>(60/150/170)                   | of light grey silt. Fractures are 5 degrees closely spaced<br>) medium spaced planar smooth close to very tight with <1mm                    | 9.28-9.50 Stiff clay po<br>vertical fracture.<br>9.50-9.77 90 degree f  |                  |                |                       |
| 10 - 5.00                        | 2.28          |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              | I             |                        |              |                 | clay infill.<br>(WEALD CLA                   | AY FORMATION)<br>Hole continues on next sheet  | planar smooth tight cl  |                  |                |                       |
| General Remarks                  |               |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 | Boring / Chisell                             |  |   |                  |                |                       |
|                                  |               |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 | epths Du                                     | Juration (mins) Tool No. Depth<br>1 4.50   | Remarks<br>Rose to 4.30 m after 20 r                                    | ninutes.         |                | Sealed                |
|                                  |               |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 |  |  |   |                  |                |                       |
|                                  |               |   |                          | ploratory Hole Records   | . All                        | ject                    |   | ern Runway Proje        | ct (NRP)     |                       |                     |                              |               |                        |              | Status          |  | Scale 1:50   | Borehole  |                  |                |                       |
|                                  |               |   |                          | n in brackets in depth o | column. Pro                  | ject No.<br>ried out fo | D2001-22<br>or VINCI Construct                    | ction T/A Taylor W      | loodrow      |                       |                     |                              |               |                        |              |                 | FINA   |  | AGS   |                  | SH6001         |                       |
| L                                |               |   |                          |                          |                              |                         |   |                         |              |                       |                     |                              |               |                        |              |                 |  | © Copyright SOCOTEC UK Limited   |   |                  | Sheet 1 01 3   |                       |



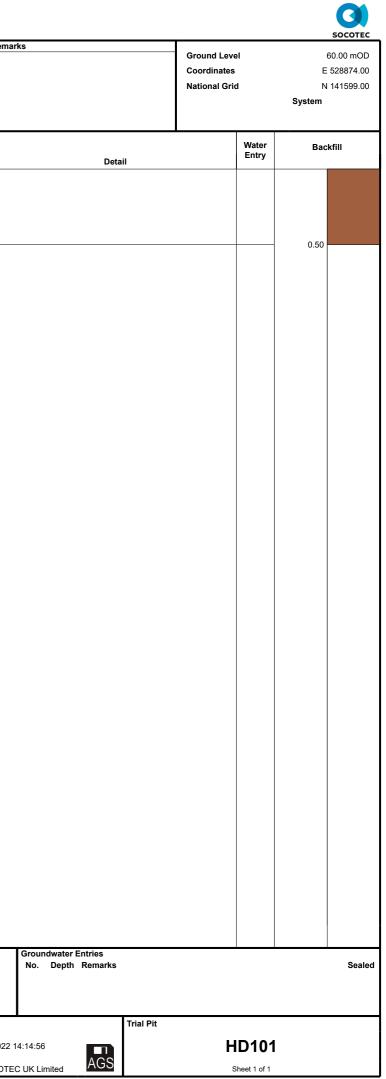
| Checked                | Dep          |                  | Dates                                |                            | Metho                            |                        |          | Equipment               | Rig Cre        |                         | gger L     | ogged                  |               | ole        |               | sing       |                                |  | Depth Related Remain   | arks                               |   |                    |                 | SOCOTEC     |
|------------------------|--------------|------------------|--------------------------------------|----------------------------|----------------------------------|------------------------|----------|-------------------------|----------------|-------------------------|------------|------------------------|---------------|------------|---------------|------------|--------------------------------|--|--|------------------------------------|---|--------------------|-----------------|-------------|
|                        | 0.00 -       | 1.20 29 Ma       | r 22 - 29 Mar 22<br>r 22 - 29 Mar 22 |                            | Hand dug inspe<br>Cable percusio |                        |          | Hand tools<br>Dando 175 | JT/DF<br>JT/DF | I E                     | 3P 29      | ) Mar 22<br>) Mar 22   | Depth<br>4.70 | Dia. (mm)  | Depth<br>4.70 | Dia. (mm)  | Depth                          | Remarks                                  |  |                                    |   | Ground Level       |                 | 56.82 mOD   |
| CP                     | 4.70 - 2     | 20.10   30 Ma    | r 22 - 29 Mar 22<br>r 22 - 01 Apr 22 |                            | Rotary core of                   |                        |          | R70 Comacchio           | 205 LW/DS      | .   E                   |            | 1 Apr 22               | 4.70<br>20.10 | 200<br>150 | 4.70<br>5.00  | 200<br>150 |                                |  |  |                                    |   | Coordinates        |                 | E 527458.35 |
| Approved               |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   | National Grid      |                 | N 142505.81 |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    | Syste           | m           |
| CP                     |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| Date                   | Time         |                  | Samples                              |                            |                                  | Field Te               | ests     | Samp / Test             | Coring         | TCR %                   | Wate       | r added                |               |            |               | <u> </u>   |                                |  | Strata Desc  | ription                            |   |                    | latar           |             |
|                        |              | <b>D</b>         |                                      |                            |                                  |                        |          |                         | Depth          | RQD                     | If         |                        |               | Depth      | Level         | Legend     |                                |  |  | inpuoli                            | <b>D</b> .(.)                                     | ie   E             | /ater E<br>ntry | Backfill    |
| 10 Casing              | Water        | Depth            | Type & No.                           | Records                    | Depth                            | Туре                   | Records  | Casing Water            | (Diameter)     | % (I                    | mm) Flusi  | n details              |               | (Thickness | 5)            |            | Verv weak or                   | ev indistinctly lami                     | Main<br>nated fractured MUDSTONE                                 | with rare pockets                  | Detail 9.78-10.12 90 degree                       | 5<br>fracture      |                 |             |
| -                      |              | 40.00            |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            | (1x60x5mm)                     | of light grey silt. Fr                   | ractures are 5 degrees close                                     | ly spaced                          | planar smooth partly o                            |                    |                 |             |
|                        |              | 10.30            | D 34                                 |                            |                                  |                        |          |                         | 9.60 - 11.10   | 100                     |            |                        |               |            |               |            | clay infill.                   |  | lanar smooth close to very ti                                    | gnt with <1mm                      | clean.<br>10.44-10.50 45 degree                   | e fracture.        |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                | 100<br>100<br>90        | 120<br>223 |                        |               | (1.5       | 6)            |            | (WEALD CLA                     | AY FORMATION)                            |  |                                    |   |                    |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                |                         | 580        |                        |               |            |               |            |                                |  |  |                                    | 10.76-10.79 30 degree<br>10.76-11.10 90 degree    |                    |                 |             |
| 11 -                   |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | planar rough partly op                            |                    |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | <1mm silty clay infill.<br>10.86-11.10 Stiff grey | clay.              |                 |             |
| _                      |              | 11.50            | D 35                                 |                            |                                  |                        |          |                         |                |                         |            |                        |               | 11.34      | +45.48        | °          | Very weak gr                   | ey laminated silty f                     | fractured MUDSTONE with o<br>light grey silt. Fractures are      | ccasional locally                  |   | -                  |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                | 100                     |            |                        |               |            |               |            | widely to med                  | dium spaced (200/                        | 460/1040) planar smooth clo                                      | sed with trace                     |   |                    |                 |             |
| -                      |              | 11.76 - 12.06    | D 36                                 |                            |                                  |                        |          |                         | 11.10 - 12.60  | 100                     |            | er flush:              | 30% rec       |            |               |            | Clay.                          | Y FORMATION)                             |  |                                    |   |                    |                 |             |
| 12 -                   |              |                  |                                      |                            |                                  |                        |          |                         |                | 100                     | 11.10      | 0 - 12.60              |               |            |               |            | (                              |  |  |                                    | 40.45.40.05.50 do mo                              | f                  |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | 12.15-12.25 50 degree<br>planar smooth tight wit  | th trace           |                 |             |
|                        | ļ            |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | silty clay.<br>12.48-12.58 90 degree              | fracture           |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | planar smooth tight <1                            |                    |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         | 30         |                        |               |            |               |            |                                |  |  |                                    | infill.   |                    |                 | $\sim$      |
| 13 —                   |              |                  |                                      |                            |                                  |                        |          |                         |                | 4                       | 490        |                        |               | (3.4       | 3)            |            |                                |  |  |                                    |   |                    |                 |             |
|                        |              | 13.20            | D 37                                 | -                          |                                  |                        |          |                         | 12.60 - 14.10  | 100 <sup>1</sup><br>100 | 040        |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
|                        | ļ            | 13.45 - 13.70    | C 38                                 |                            |                                  |                        |          |                         | 12.00 - 14.10  | 100                     |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
|                        |              | 13.40 - 13.70    | 0.30                                 |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| 14 —                   |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| 14                     |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| -                      |              | 14.60            | D 39                                 |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| -                      |              | 14.00            |                                      |                            |                                  |                        |          |                         |                | 100                     |            |                        |               | 14.77      | +42.06        | 6          | Week groute                    | dark grou indiction                      | ctly laminated fractured MUD                                     |                                    | -   |                    |                 |             |
| 15 —                   |              |                  |                                      |                            |                                  |                        |          |                         | 14.10 - 15.60  | 95<br>92                |            |                        |               |            |               |            | lenses (1x3x)                  | 30mm) light grev si                      | ilt. Fractures are 10-20 degre                                   | es widelv locallv                  | 14.94-15.01 45 degree                             |                    |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                | ed (50/400/1020) p<br>AY FORMATION)      | lanar smooth very tight with                                     | trace clay infill.                 | 15.01-15.21 90 degree<br>curved smooth partly of  |                    |                 |             |
| -                      |              | 15.27 - 15.50    | C 40                                 |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            | (                              |  |  |                                    | heavy brown staining.<br>15.25-15.27 Thick lam    | ince of            |                 |             |
|                        |              | 15.54            | D 41                                 |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | stiff dark grey clay.                             |                    |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| 16 —                   |              |                  |                                      |                            |                                  |                        |          |                         |                |                         | NI<br>361  |                        |               | (2.5       | 2)            |            |                                |  |  |                                    | 16.05-16.15 40 degree                             | es                 |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                | 1 100 1                 | 910        |                        |               |            |               |            |                                |  |  |                                    | fracture.   |                    |                 |             |
| -                      |              | 16.45            | D 42                                 |                            |                                  |                        |          |                         | 15.60 - 17.10  | 100<br>97               | Wat        | er flush:<br>0 - 20.10 | 0% rec        |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                |                         | 12.00      | 20.10                  |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| -                      |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | 16.92-17.14 90 degree                             | fracture           |                 |             |
| 17 —                   |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | planar rough partly op                            |                    |                 |             |
|                        |              | 17.30            | D 43                                 |                            |                                  |                        |          |                         |                | -                       |            |                        |               | 17.29      | +39.53        | 3          | Very week le                   | cally weak dark and                      | ey fractured MUDSTONE wit  | h rare pocketo                     | <1mm clay infill.                                 |                    |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            | (1x2x10mm)                     | of light grey silt. Fr                   | racture set 1; 30-45 degrees                                     | medium to widely                   |   |                    |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                | 100                     |            |                        |               |            |               |            | spaced (290/<br>Fracture set 2 | 350/580) planar sr<br>2; 10-20 degree wi | nooth with rare slight polishi<br>dely spaced locally closely to | ng tight clean.<br>D medium spaced | 17.73-17.92 90 degree                             | e fracture         |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         | 17.10 - 18.60  | 100<br>91               |            |                        |               |            |               |            | (60/300/850)                   | planar smooth tigh                       | nt with <1mm clay infill.  | 4000                               | undulating smooth par<br>clean.                   |                    |                 | $\sim$      |
| 18 —                   |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                | Y FORMATION)                             |  |                                    |   |                    |                 |             |
|                        |              | 18.13 - 18.42    | C 44                                 | -                          |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         | NI         |                        |               |            |               |            |                                |  |  |                                    | 18.60-18.84 90 degree                             | fracture           |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         | 230<br>870 |                        |               | (2.8       | 1)            |            |                                |  |  |                                    | planar smooth tight cle                           |                    |                 |             |
| 19 —                   |              | 40.00            |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | rare polishing.                                   |                    |                 |             |
|                        |              | 18.93 - 19.18    | C 45                                 |                            |                                  |                        |          |                         |                | 100                     |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         | 18.60 - 20.10  | 97<br>93                |            |                        |               |            |               |            |                                |  |  |                                    | 10.46.40.00.00.1                                  |                    |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | 19.46-19.92 90 degree<br>smooth very tight clear  | e pianar<br>n with |                 |             |
|                        |              | 19.70            | D 46                                 | -                          |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    | slight polishing.                                 |                    |                 |             |
| 20 - 01 Apr 22<br>5.00 | 0400<br>2.70 |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        | l             |            |               |            |                                | Hole                                     | continues on next sheet  |                                    |   |                    |                 |             |
| 0.00                   | 2.70         |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        | _             |            |               |            |                                | 1010                                     |  |                                    |   |                    |                 |             |
| General Remarks        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            | Boring / Chisell               | -  | T!   | Groundwater Er                     |   |                    |                 | 0           |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            | epths D                        | uration (mins)                           | Tool   | No. Depth                          | Reinarks  |                    |                 | Sealed      |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |
| Notes                  |              |                  |                                      |                            |                                  | t                      | 0-1      | Burne D                 |                |                         |            |                        |               |            |               | Status     | ;                              |  | 0  |                                    | Borehole  |                    |                 |             |
|                        |              |                  |                                      | ploratory Hole Records. A  |                                  |                        |          | ern Runway Project      | (NRP)          |                         |            |                        |               |            |               |            | FINIA                          |  | Scale 1:50<br>Printed 22 Jul 2022                                | 14-10-64                           |   | BU                 | 2004            |             |
| depths and reduced     | i levels in  | n metres. Stratu | im thickness give                    | n in brackets in depth col |                                  | ect No.<br>iod out for | D2001-22 | tion T/A Toular Mr      | drow           |                         |            |                        |               |            |               |            | FINA                           | ∧∟                                       | Printed 22 Jul 2022  | 14.12.04                           | AGS   | БЦ                 | 6001            |             |
|                        |              |                  |                                      |                            | Carri                            | ied out for            |          | ction T/A Taylor Woo    | Julow          |                         |            |                        |               |            |               |            |                                |  | © Copyright SOCOT  | EC UK Limited                      | AGS   | Shee               | 2 of 3          |             |
|                        |              |                  |                                      |                            |                                  |                        |          |                         |                |                         |            |                        |               |            |               |            |                                |  |  |                                    |   |                    |                 |             |



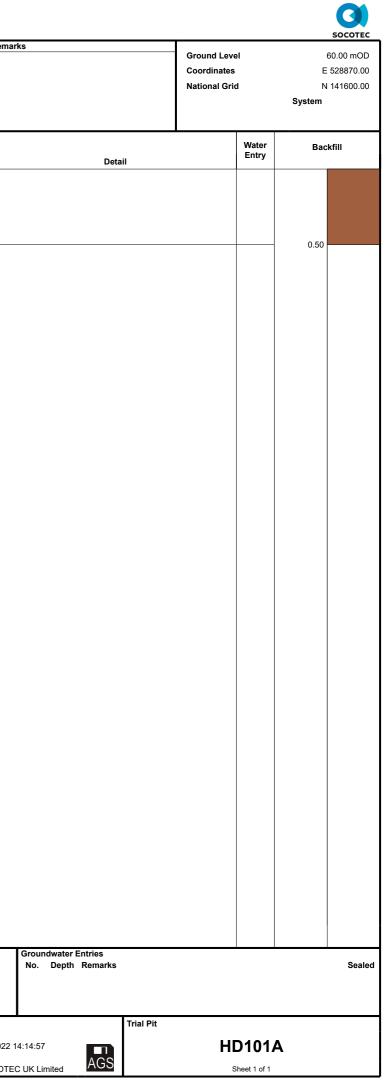
| DUI                          | ,                       |                      |                     | 9                                       |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         | SOCOTEC   |
|------------------------------|-------------------------|----------------------|---------------------|---|---|--|--|----------------|----------------------------|-----------------|----------------|--------------|------------------------|---------------|-----------------|---------------|-----------------|--|---|--|---|--|----------|---------------|-------------|---------|-----------|
| Checke                       | d                       | Dept<br>0.00 - 1     | th<br>1.20 2        | <b>Dates</b><br>9 Mar 22 - 29 Ma        | r 22  | Me<br>Hand dug i                       | thod   | 1              | Equipment<br>Hand tools    | Rig             | Crew /         | Logger<br>BP | Logged<br>29 Mar 22    | Ho            | le<br>Dia. (mm) | Casi<br>Depth | ng<br>Dia. (mm) | Depth  | Remarks   | Depth  | Related Remar   | ks   |          | Ground Leve   | əl          | Ę       | 56.82 mOD |
| CP                           |                         | 1.20 - 4             | 4.70 2              | 9 Mar 22 - 29 Ma<br>0 Mar 22 - 01 Apr   | r 22  | Hand dug in<br>Cable perc<br>Rotary of | usion drilling.<br>ore drilling.             | -              | Dando 175<br>R70 Comacchio | JT              | /DH            | BP<br>NH     | 29 Mar 22<br>01 Apr 22 | 4.70<br>20.10 | 200<br>150      | 4.70<br>5.00  | 200             | Dopti  | Romanio   |  |   |  |          | Coordinates   |             |         | 527458.35 |
| Approve                      |                         | 4.70 - 2             |                     | 0 10101 22 - 01 Api                     |   | Notary of                              | ore arming.                                  |                | TO COMACCINE               | 203             |                |              | 0170122                | 20.10         | 150             | 5.00          | 150             |  |   |  |   |  |          | National Grid | ł           | Ν       | 142505.81 |
|                              | ~                       |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             | System  |           |
| CP                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| Da                           | te T                    | Time                 |                     | Sam                                     | ples  |  | Field  | Tests          | Samp / Test                | Coring<br>Depth | TCR %<br>SCR % | If           | Water added            |               | Depth           | Level         | Legend          |  |   |  | Strata Descri   | iption   |          | sel.          | Water       | Bacl    | kfill     |
| 20 <b>Cas</b> i              | ing V                   | Vater                | Dept                | n Type & No                             | o. Records                                      | Depth                                  | Туре   | Records        | Casing Water               | (Diameter       | r) %           | (mm)         | Flush details          |               | (Thickness)     |               |                 |  |   | Main   |   |  | Detail   | Chis          | Entry       |         |           |
|                              |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        | I             | 20.10           | +36.72        |                 | Very weak lo<br>(1x2x10mm)<br>spaced (290)<br>Fracture set<br>(60/300/850)<br>(WEALD CL/ | cally weak dark g<br>of light grey silt. I<br>350/580) planar s<br>2; 10-20 degree v<br>planar smooth tig<br>AY FORMATION)<br>END | rey fractured MI<br>Fracture set 1; 3<br>smooth with rare<br>widely spaced lo<br>ght with <1mm c | UDSTONE with<br>30-45 degrees n<br>e slight polishing<br>cally closely to<br>clay infill. | rare pockets<br>nedium to widel<br>g tight clean.<br>medium spaced | y<br>d   |               |             | 20.10 . |           |
| 21                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 22                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 23                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 24                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 25                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 26                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 27 —                         |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 28                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 29                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 30 —                         |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| 30                           |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
| General Rer                  | narks                   | -                    |                     |   |   | I                                      | <u>    I          I                     </u> |                | 1                          | •               |                |              |                        | I             |                 |               |                 | oring / Chisell<br>epths D   | ing<br>uration (mins)   | То   |   | Groundwater<br>No. Depth   |          |               | . <u> </u>  |         | Sealed    |
|                              |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |
|                              |                         |                      |                     |   |   | <u> </u>                               |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  | -        |               |             |         |           |
| Notes                        |                         |                      |                     | definer of the second                   | - Forder (                                      | Р                                      | Project                                      | Gatwick Nor    | thern Runway Projec        | t (NRP)         |                |              |                        |               |                 |               | Status          |  |   | Scale  | 1:50  |  | Borehole |               |             |         |           |
| For explanat<br>depths and r | ion of sym<br>educed le | nbols ar<br>evels in | nd abbre<br>metres. | vations see Key to<br>Stratum thickness | o Exploratory Hole Re<br>given in brackets in d | COIUS. All                             | Project No.                                  | D2001-22       | . ,                        | -               |                |              |                        |               |                 |               |                 | FINA   | AL.   |  | 22 Jul 2022 1   | 4:12:54  |          | B             | H6001       |         |           |
|                              |                         |                      |                     |   |   |  | carried out fo                               | or VINCI Const | truction T/A Taylor Wo     | odrow           |                |              |                        |               |                 |               |                 |  |   | © Copy   | yright SOCOTE   | C UK Limited   | AGS      |               | heet 3 of 3 |         |           |
| L                            |                         |                      |                     |   |   |  |  |                |                            |                 |                |              |                        |               |                 |               |                 |  |   |  |   |  |          |               |             |         |           |



| Check      | ked       | Dep         | oth              | Dates                                |  | Metho        | od         |                   | Equipment                  | Rig Crew | Logger                            | Logged               | Dimensions and Orientation   |                          |                         | Depth Related Rema  |
|------------|-----------|-------------|------------------|--------------------------------------|--|--------------|------------|-------------------|----------------------------|----------|-----------------------------------|----------------------|--|--------------------------|-------------------------|---------------------|
| CP         |           | 0.00 -      | 0.50 27 Ap       | r 22 - 27 Apr 22                     | 2  | Hand dug ins |            | t                 | Hand tools                 |          | VJ                                | 27 Apr 22            |  | Depth                    | Remarks                 |                     |
| Approv     |           | -           |                  |                                      |  |              |            |                   |                            |          |                                   |                      | Width 0.30 m   |                          |                         |                     |
| CP         |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      | Length 0.30 m A  |                          |                         |                     |
|            | Date      | Time        |                  | Sample                               |  |              | Field      | Tooto             |                            |          |                                   |                      |  |                          | ata Description         |                     |
|            | Jale      | Water       | Depth            | Type & No.                           | Records  | Depth        | Туре       | Records           | Depth Level<br>(Thickness) | Legend   |                                   |                      | Main   |                          |                         |                     |
| 0 - 27     | Apr 22    | 0800        |                  |                                      |  |              |            |                   |                            |          | (TOPSOIL)<br>Dark brown s         | lightly gravelly     | r clayey SAND with frequent pockets (up to<br>25mm diameter) and frequent rootlets. Sa | 45x30x15mm) of soft r    | nottled pink and grey   | slightly sandy      |
| -          |           | Dry         | 0.15<br>0.20     | ES 1<br>D 2                          |  | 0.15         | PID        | 0.0 ppmv (Test 1) | (0.40)                     |          | clay, occasior<br>coarse of flint | nal roots (up to<br> | 25mm diameter) and frequent rootlets. Sa   | and is fine to medium. C | Gravel is angular to su | ibrounded fine to   |
| 27.        | ' Apr 22  | 1800<br>Dry | 0.40 - 0.50      | В4                                   |  |              |            |                   | 0.40 +59.6                 |          | (MADE GRO                         | UND)                 |  |                          |                         |                     |
|            |           |             | 0.50             | D 3                                  | _  |              |            |                   | (0.10)<br>0.50 +59.5       | 0        | Soft mottled g                    | rey and pinkis       | sh brown slightly sandy slightly gravelly CL<br>e of flint.<br>END OF EXPLORAT         |                          | and is fine to medium   | . Gravel is angular |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      | END OF EXPLORA   | ORY HOLE                 |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| 1 -        |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| 2 —        |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| 3 —        |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| 4 —        |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| -          |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| 5 —        |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  |                          |                         |                     |
| General Re |           |             | ated -+ 0 50     | dua to                               |  |              |            |                   | •                          |          |                                   |                      |  | Ot-Lift.                 |                         | I                   |
| Ierminatio | on Reaso  | on: Termir  | lated at 0.50m   | due to concrete                      | e odstruction.                                       |              |            |                   |                            |          |                                   |                      |  | Stability<br>Shoring     |                         |                     |
|            |           |             |                  |                                      |  |              |            |                   |                            |          |                                   |                      |  | Weather                  |                         |                     |
| Notes      | otion -f  | ourse -     | and others data  |                                      | volorator: Lois D '                                  | Pro          | ject       | Gatwick Northe    | ern Runway Project (NRI    | P)       |                                   |                      |  | Status                   |                         | Scale 1:25          |
| depths and | d reduced | d levels ir | i metres. Stratu | ins see key to E<br>im thickness giv | Exploratory Hole Records<br>ven in brackets in depth | column. Pro  | ject No.   | D2001-22          |                            |          |                                   |                      |  | FINA                     | AL.                     | Printed 22 Jul 2022 |
|            |           |             |                  |                                      |  | Car          | ried out f | VINCI Constru     | ction T/A Taylor Woodrov   | v        |                                   |                      |  |                          |                         | © Copyright SOCOTE  |



| Ch     | ecked        | Dep         | th            | Dates            |   | Meth         |             |                  | Equipment                                   | Rig Crew  | Logger                      | Logged                  | Dimensions and Orientation   |                          |                          | Depth Related Rema  |
|--------|--------------|-------------|---------------|------------------|---|--------------|-------------|------------------|---|-----------|-----------------------------|-------------------------|--|--------------------------|--------------------------|---------------------|
|        | CP           | 0.00 -      | 0.50 27 A     | pr 22 - 27 Apr 2 | 2   | Hand dug ins |             |                  | Hand tools                                  | Labourers |                             | Logged<br>17 Apr 22     |  | Depth                    | Remarks                  |                     |
|        |              | -           |               |                  |   |              |             |                  |   |           |                             |                         | C  |                          |                          |                     |
|        | proved<br>CP |             |               |                  |   |              |             |                  |   |           |                             |                         | Length 0.30 m A  |                          |                          |                     |
|        |              | L           |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        | Date         | Time        | Danéh         | Sampl            |   | Danth        | Field Te    |                  | Depth Level                                 | Legend    |                             |                         | M-:-   |                          | ata Description          |                     |
| 0 —    |              | Water       | Depth         | Type & No.       | Records   | Depth        | Туре        | Records          | (Thickness)                                 |           | (TOPSOIL)                   |                         | Main   |                          |                          |                     |
| -      | 27 Apr 22    | 0800<br>Dry |               |                  |   |              |             |                  | (0.40)                                      |           | clay ,frequent              | t rootlets and o        | r clayey fine to medium SAND with pockets occasional roots (20mm diameter). Gravel | is angular to subrounde  | d fine to coarse of flir | it.                 |
| -      | 27 Apr 22    | 1800<br>Dry |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  | 0.40 +59.60<br>(0.10) +59.50<br>0.50 +59.50 |           | (MADE GRO<br>Soft mottled g | UND)<br>grey and pinkis | sh brown slightly sandy slightly gravelly CL<br>e of flint.                        | AY with rare rootlets. S | and is fine to medium    | . Gravel is angular |
| -      |              |             |               |                  |   |              |             |                  | 0.00  |           | \ to subrounde              | d fine to coars         | e of flint.<br>END OF EXPLORAT   | TORY HOLE                |                          | /                   |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| 1 -    |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| 2 —    |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| 3 —    |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| 4 —    |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| -      |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
| 5 —    |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  |                          |                          |                     |
|        | al Remarks   |             | ated at 0.50m | n due to concret | e obstruction.  |              |             |                  |   |           |                             |                         |  | Stability                |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  | Shoring                  |                          |                     |
|        |              |             |               |                  |   |              |             |                  |   |           |                             |                         |  | Weather                  |                          |                     |
| Notes  | lanation of  | symbols -   | nd abbreviet  | ane see Kaut-    | Evoloratory Hole Descrit                              | Pro          | ject        | Gatwick Northe   | ern Runway Project (NRP)                    |           |                             |                         |  | Status                   |                          | Scale 1:25          |
| depths | and reduced  | d levels in | metres. Strat | um thickness gi  | Exploratory Hole Records<br>iven in brackets in depth | column. Pro  | ject No.    | D2001-22         | tion T/A T J 14/                            |           |                             |                         |  | FINA                     | AL.                      | Printed 22 Jul 2022 |
|        |              |             |               |                  |   | Car          | ried out fo | r VINCI Construc | ction T/A Taylor Woodrow                    |           |                             |                         |  |                          |                          | © Copyright SOCOTE  |



| ced De                        | Depth                | Dates               |                           | Metho        | od            |               | Equipment            | Rig Crew  | / Logg   | jer Loaaed              | Dimensions and Orientation  |                      |                       | Depth Related Rema    | rks                 | <u> </u>  |               |               | SOCOT    |
|-------------------------------|----------------------|---------------------|---------------------------|--------------|---------------|---------------|----------------------|-----------|----------|-------------------------|---|----------------------|-----------------------|-----------------------|---------------------|-----------|---------------|---------------|----------|
| 0.00                          | 0 - 0.30 27          | Apr 22 - 27 Apr 22  | 1                         | Hand dug ins |               |               | Hand tools           | Labourers | s VJ     | per Logged<br>27 Apr 22 |   | Depth                | Remarks               |                       |                     |           | Ground Level  |               | 60.50 m  |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           | Coordinates   |               | E 528872 |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           | National Grid |               | N 141603 |
| ed                            |                      |                     |                           |              |               |               |                      |           |          |                         | Width 0.30 m B D  |                      |                       |                       |                     |           |               | Svs           | stem     |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         | Length 0.30 m A   |                      |                       |                       |                     |           |               | - ,0          |          |
|                               |                      |                     |                           | 1            |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           | I             |               |          |
| Time                          |                      | Samples             |                           |              | Field Tes     |               | Depth Lev            | el Legend |          |                         |   | Str                  | ata Description       |                       |                     |           | W             | /ater<br>ntry | Backfill |
| Water                         | er Depth             | Type & No.          | Records                   | Depth        | Туре          | Records       | (Thickness)          |           | Dark bro | wn slightly grouelly    | Main  | mm) of soft mottle   | d nink and arev elige | tly sandy clay and    |                     | Detail    | E             |               |          |
| 22 0800                       | 0                    |                     |                           |              |               |               | (0.30)               |           | frequent | rootlets. Sand is fir   | clayey SAND with frequent pockets (40x20x10 ne to medium. Gravel is angular to subrounded | fine to coarse of fl | int.                  | iny salidy day and    |                     |           |               |               |          |
| r 22 0800<br>r 22 Dry<br>1800 | у<br>0               |                     |                           |              |               |               | (0.50)               |           | -        |                         |   |                      |                       |                       |                     |           |               |               |          |
| Dry                           | у                    |                     |                           |              |               |               | 0.30 +               | 50.20     |          |                         | END OF EXPLORATORY H  | HOLE                 |                       |                       |                     |           |               |               | 0.30     |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   |                      |                       |                       |                     |           |               |               |          |
| irks                          | •                    | 1                   |                           |              |               |               | 1                    | I         | 1        |                         |   |                      |                       | 1                     | Groundwater Entries |           | I             | 1             | I        |
|                               | minated at 0.30      | m due to two large  | roots and a boulder.      |              |               |               |                      |           |          |                         | Stab  | pility               |                       |                       | No. Depth Rema      | rks       |               |               |          |
|                               |                      | 5-                  |                           |              |               |               |                      |           |          |                         | Sho   |                      |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           |              |               |               |                      |           |          |                         |   | ather                |                       |                       |                     |           |               |               |          |
|                               |                      |                     |                           | •            |               |               |                      |           |          |                         |   |                      |                       | •                     |                     |           |               |               |          |
|                               |                      |                     |                           | Pro          | oject         | Gatwick North | ern Runway Project ( | NRP)      |          |                         | Stat  | us                   |                       | Scale 1:25            |                     | Trial Pit |               |               |          |
| on of symbols                 | ls and abbrevia      | tions see Key to Ex | ploratory Hole Records    | 5. All       | oject No.     | D2001-22      | an ranway rioject (  | ,         |          |                         |   | FIN                  | <u>م</u> ا            | Printed 22 Jul 2022   | 14.14.57            |           | пл1           | 01B           |          |
| auceu ieveis                  | S III III EU ES. SUI | atom unickness give | en in brackets in depth o |              | rried out for |               | ction T/A Taylor Woo | drow      |          |                         |   | E II M               |                       | 1 milliou 22 Jul 2022 | 14:14:57            |           | וטה           |               |          |
|                               |                      |                     |                           | Car          | THER OUT TOP  | VINCI Constru | CUOD L/A LAVIOR WOO  | 11/3/4/   |          |                         |   |                      |                       | -                     |                     |           |               |               |          |



| Checked                     | De             | oth                 | Dates             |  | Meth         |                         |                                       | Equipment                  | Rig Crew | Logger                      | Logged              | Dimensions and Orientation                   |                         |                                   | Depth Related Rema        |
|-----------------------------|----------------|---------------------|-------------------|--|--------------|-------------------------|---------------------------------------|----------------------------|----------|-----------------------------|---------------------|--|-------------------------|-----------------------------------|---------------------------|
| СР                          | 0.00 -         | 0.50 23 Fe          | b 22 - 23 Feb 22  | 2  | Hand dug ins |                         |                                       | Hand tools                 | -        | KD                          | Logged<br>23 Feb 22 |  | Depth<br>0.50           | Remarks<br>Terminated at 0.50m of | on client instruction due |
| Approved                    | -              |                     |                   |  |              |                         |                                       |                            |          |                             |                     | Width 0.30 m                                 |                         |                                   |                           |
| CP                          |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     | Length 0.30 m A                              |                         |                                   |                           |
| Date                        | Time           |                     | Samples           |  |              | Field                   | Toete                                 |                            |          |                             |                     |  |                         | ata Description                   |                           |
|                             | Ume<br>Water   | Depth               | Samples           | s<br>Records                                       | Depth        | Гієїа<br>Туре           | Records                               | Depth Level<br>(Thickness) | Legend   |                             |                     | Main   | Str                     |                                   |                           |
| 0<br>- 23 Feb 2             | 2 0800         | 0.05                | D1<br>B2          | -  |              |                         |                                       | (0.25)                     |          | (TOPSOIL)<br>Soft dark brov | wn slightly grav    | velly CLAY with frequent rootlets. Gravel is | subrounded fine to me   | edium of flint.                   |                           |
| -                           | Dry            | 0.25                | W 1               |  | 0.25         | HV                      | p >188kPa, r N/A                      | (0.25)<br>0.25 +56.55      |          | (MADE GROU                  |                     |  |                         |                                   |                           |
| _ 23 Feb 2<br>_             | 2 1700<br>0.20 | 0.30<br>0.40 - 0.50 | ES 3<br>B 4       |  | 0.30<br>0.30 | PID<br>HV               | 0.0 ppmv (Test 1)<br>p >188kPa, r N/A | (0.25)                     |          | Soft light brow             | vn brown sligh      | tly gravelly CLAY. Gravel is fine to medium  | of flint and red brick. |                                   |                           |
| -                           |                |                     |                   |  | 0.50         | нv                      | p >188kPa, r N/A                      | 0.50 +56.30                |          |                             |                     | END OF EXPLORAT                              | ORY HOLE                |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| -                           |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| 1                           |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| 2                           |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| -                           |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| -                           |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| -                           |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| -                           |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| 3 —                         |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| -                           |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| 4 —                         |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
| 5 —                         |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  |                         |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     | -  |                         |                                   |                           |
| General Remark              | s              |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  | Stability               |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  | Shoring                 |                                   |                           |
|                             |                |                     |                   |  |              |                         |                                       |                            |          |                             |                     |  | Weather                 |                                   |                           |
| Notes<br>For explanation of | f symbols a    | and abbreviatio     | ns see Key to E   | xploratory Hole Records                            | s. All       | ject                    |                                       | ern Runway Project (NRP    | )        |                             |                     |  | Status                  |                                   | Scale 1:25                |
| depths and redu             | ed levels in   | n metres. Stratu    | im thickness give | xploratory Hole Records<br>en in brackets in depth |              | ject No.<br>ried out fo | D2001-22<br>or VINCI Construe         | ction T/A Taylor Woodrow   |          |                             |                     |  | FINA                    | AL                                | Printed 22 Jul 2022       |
|                             |                |                     |                   |  |              |                         |                                       | ,                          |          |                             |                     |  |                         |                                   | © Copyright SOCOTE        |

|  |   |                |      | SOCOTEC                             |
|--|---|----------------|------|-------------------------------------|
| arks<br>e to groundwater.  | Ground Leve<br>Coordinates<br>National Grid |                | E    | 56.80 mOD<br>527869.00<br>142078.00 |
| Detail   |   | Water<br>Entry | Bac  | kfill                               |
|  |   |                | 0.50 |                                     |
| Groundwater Entries<br>No. Depth Remarks<br>1 0.50 Rose to 0.20 m after 20 | minutes.                                    |                |      | Sealed                              |
| 14:14:57<br>EC UK Limited  |   | <b>D803</b>    |      |                                     |

| Che                            | cked                       | De                    | <b>pth</b><br>- 0.48 2               | Dates<br>2 Feb 22 -                  |   | Metho        |                                 |  | Equipm                 |                  | Rig Crew |   | Logged<br>22 Feb 22 | Dimensions and Orientation                   |                                 | D                     | Depth Related Rem                                     | arks                |
|--------------------------------|----------------------------|-----------------------|--------------------------------------|--------------------------------------|---|--------------|---------------------------------|--|------------------------|------------------|----------|---|---------------------|--|---------------------------------|-----------------------|---|---------------------|
| c                              | P                          | 0.00                  | - 0.48 2                             | 2 Feb 22 -                           |   | Hand dug ins | pection pit.                    |  | Hand to                | IOIS             |          | KD  | 22 Feb 22           |  | Depth                           | Remarks               |   |                     |
| Аррі                           | roved                      |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     | Width 0.30 m B D                             |                                 |                       |   |                     |
| c                              | P                          |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     | Length 0.30 m A                              |                                 |                       |   |                     |
|                                | Date                       | Time                  |                                      | Samples                              | ;   |              | Field T                         | lests  | Depth                  | Level            | Legend   |   | 1                   |  | St                              | rata Description      |   |                     |
| 0 —                            |                            | Water                 | Depth                                | Type & No.                           | Records   | Depth        | Туре                            | Records  | (Thickness)            |                  | ******   | (MADE GROU  |                     | Main   |                                 |                       |   | Detail              |
|                                | 22 Feb 22                  | 0800<br>Dry           | 0.10<br>0.10 - 0.20<br>0.30          | D 1<br>B 2<br>ES 3                   |   | 0.30<br>0.30 | PID<br>HV                       | 0.0 ppmv (Test 1)<br>p 108kPa, r 29kPa         | (0.90)                 |                  |          | Stiff dark brow<br>mudstone.                        | vn slightly san     | dy slightly gravelly CLAY. Sand is fine. Gra | avel is subrounded to re        | ounded fine to mediu  | m of red brick and                                    |                     |
|                                | 22 Feb 22                  | 1700<br>Dry           | 0.95<br>1.00 - 1.10<br>1.00          | D 4<br>B 6<br>ES 5                   |   | 1.00         | PID                             | 0.0 ppmv (Test 2)                              | 0.90<br>(0.30)<br>1.20 | +57.60<br>+57.30 |          | Stiff dark brow<br>and grey flint.<br>(Possible MAI |                     | dy slightly gravelly CLAY. Sand is fine. Gra | -                               | ibrounded fine to coa | rse of white chalk                                    |                     |
| 2                              |                            |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     |  |                                 |                       |   |                     |
|                                |                            |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     |  |                                 |                       |   |                     |
| 3                              |                            |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     |  |                                 |                       |   |                     |
|                                |                            |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     |  |                                 |                       |   |                     |
| 4                              |                            |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     |  |                                 |                       |   |                     |
| 5                              |                            |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     |  |                                 |                       |   |                     |
| Ganara                         | Pomorius                   |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     |  | 1                               |                       |   | Groundwater Entries |
|                                | Remarks                    |                       |                                      |                                      |   |              |                                 |  |                        |                  |          |   |                     |  | Stability<br>Shoring<br>Weather |                       |   | No. Depth Remarks   |
| Notes<br>For expla<br>depths a | anation of s<br>nd reduced | symbols<br>d levels i | and abbreviatior<br>n metres. Stratu | ns see Key to Ex<br>m thickness give | ploratory Hole Records<br>in in brackets in depth |              | ject<br>ject No.<br>ried out fo | Gatwick Northe<br>D2001-22<br>or VINCI Constru |                        |                  |          |   |                     |  | Status<br>FIN                   | AL                    | Scale 1:25<br>Printed 22 Jul 202<br>© Copyright SOCOT |                     |

| emarks                                   | Ground Level<br>Coordinates<br>National Grid | 58.50 mOD<br>E 527931.00<br>N 142039.00<br>System |
|--|--|---|
| Detai                                    | Water<br>Entry                               | Backfill  |
| Groundwater Entries<br>No. Depth Remarks |  | 1.20  |
|  | Trial Pit                                    |   |
| 022 14:14:58                             | HD804<br>Sheet 1 of 1                        | 4   |
|  |  |   |

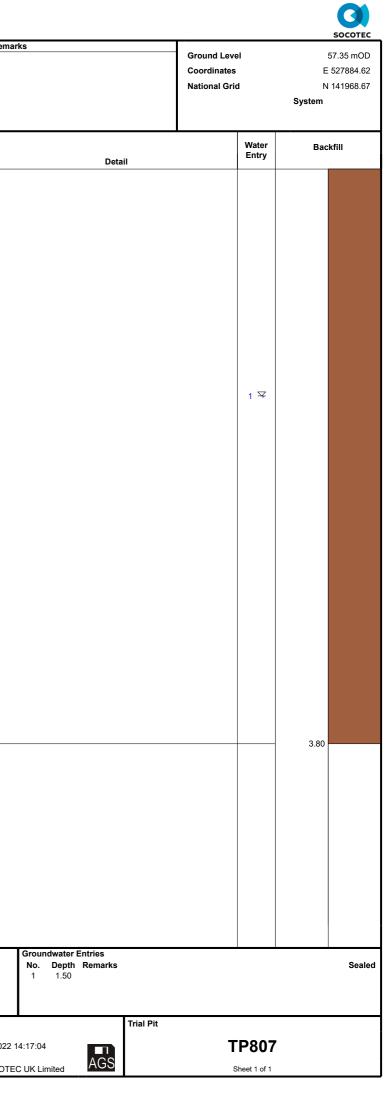
| Checked       |                       | pth                 | Dates            |   | Meth                  | od                 |                            | Equipm           | ent        | Rig Crew |                               | Logged<br>23 Feb 22     | Dimensions and Orientation                   |                          |                        | Depth Related Remain              |
|---------------|-----------------------|---------------------|------------------|---|-----------------------|--------------------|----------------------------|------------------|------------|----------|-------------------------------|-------------------------|--|--------------------------|------------------------|-----------------------------------|
| CP            | 0.00                  | - 1.20 23 Feb       | o 22 - 23 Feb 22 |   | Hand dug ins          | pection pit        |                            | Hand to          | ols        |          | KD                            | 23 Feb 22               |  | Depth                    | Remarks                |                                   |
| Approved      |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         | Width 0.30 m B D                             |                          |                        |                                   |
| СР            |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         | Length 0.30 m A                              |                          |                        |                                   |
| Date          | Time                  |                     | Samples          | \$  |                       | Field              | Tests                      | Depth            | Level      | Legend   |                               |                         |  | St                       | rata Description       |                                   |
| 0             | Water                 | Depth               | Type & No.       | Records   | Depth                 | Туре               | Records                    | (Thickness)      | 20101      |          |                               |                         | Main   |                          |                        |                                   |
| - 23 Feb 22   | 0800<br>Dry           | 0.10<br>0.10 - 0.20 | D 1<br>B 2       |   |                       |                    |                            |                  |            |          | (MADE GROU<br>Soft light brov | UND)<br>vn slightly gra | velly CLAY with frequent rootlets. Gravel is | subangular to subrou     | nded fine to medium o  | of flint and red brick.           |
| -             | 2.,                   | 0.30                | ES 3             |   | 0.30                  | PID                | 0.0 ppmv (Test 1)          | (0.55)           |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
|               |                       | 0.50 - 0.60         | B 4              |   |                       |                    |                            | 0.55             | +58.95     |          | (MADE GROU                    | UND)                    |  |                          |                        |                                   |
|               |                       |                     |                  |   |                       |                    |                            |                  |            |          | Firm brown sl                 | lightly gravelly        | CLAY. Gravel is subangular to subrounded     | I fine to medium of flin | t and red brick fragme | ents.                             |
|               |                       |                     |                  |   |                       |                    |                            | (0.65)           |            |          |                               |                         |  |                          |                        |                                   |
| 23 Feb 22     | 1700                  | 1.00                | ES 5             |   | 1.00                  | PID                | 0.0 ppmv (Test 2)          |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             | Dry                   | 1.20                | D 6              |   |                       |                    |                            | 1.20             | +58.30     |          |                               |                         |  |                          |                        |                                   |
| -             |                       | 1.20                | DO               |   |                       |                    |                            | 1.20             | +00.00     |          |                               |                         | END OF EXPLORAT                              | ORY HOLE                 |                        |                                   |
|               |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| _             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
|               |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
|               |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| _             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| -             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| _             |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| 5 —           |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
| neral Remarks |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        |                                   |
|               |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  | Stability                |                        |                                   |
|               |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  | Shoring<br>Weather       |                        |                                   |
| tes           |                       |                     |                  |   |                       |                    | _                          | _                |            |          |                               |                         |  | Status                   |                        |                                   |
|               | symbols<br>d levels i | and abbreviation    | ns see Key to Ex | ploratory Hole Record<br>n in brackets in depth | s. All<br>column. Pro | oject<br>Dject No. | Gatwick Northe<br>D2001-22 | ern Runway Pro   | ject (NRP) | )        |                               |                         |  | FIN                      | AL                     | Scale 1:25<br>Printed 22 Jul 2022 |
|               |                       |                     |                  |   |                       | rried out fo       |                            | ction T/A Taylor | Woodrow    |          |                               |                         |  |                          |                        | © Copyright SOCOT                 |
|               |                       |                     |                  |   |                       |                    |                            |                  |            |          |                               |                         |  |                          |                        | Sopyright 50001                   |

|  |           |                                 |      | SOCOTEC                             |
|--|-----------|---------------------------------|------|-------------------------------------|
| arks                                     | Coor      | nd Level<br>dinates<br>nal Grid | E    | 59.50 mOD<br>527963.00<br>142017.00 |
| Detail                                   |           | Water<br>Entry                  | Bac  | kfill                               |
|  |           |                                 | 1.20 |                                     |
| Groundwater Entries<br>No. Depth Remarks |           |                                 |      | Sealed                              |
| 2 14:14:58<br>EC UK Limited              | Trial Pit | HD815                           |      |                                     |

| Checked                           |               | - 3.90 14 Ma         | Dates<br>r 22 - 14 Mar 22 | 2                        | Meth<br>Machine excav |             | sit               | Equip<br>JCB   |             | Rig Crew<br>Labourers |  | Logged<br>14 Mar 22 | Dimensions and Orientation   |              | Depth               | Remarks                | Depth Related       | Rema |
|-----------------------------------|---------------|----------------------|---------------------------|--------------------------|-----------------------|-------------|-------------------|----------------|-------------|-----------------------|--|---------------------|--|--------------|---------------------|------------------------|---------------------|------|
| СР                                | 0.00          | - 0.00               | 1 ZZ - 14 Midi ZZ         | <u>-</u>                 |                       |             | nt.               | 100            | 007         | Labourers             |  |                     |  |              | Deptil              | Remarks                |                     |      |
| Approved                          |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     | Width 3.80 m B D D   | 270          |                     |                        |                     |      |
| CP                                |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     | Length 4.50 m A  | (Deg)        |                     |                        |                     |      |
| Date                              | Time          |                      | Sample                    | s                        |                       | Field       | Tests             | Depth          | Level       | Legend                |  |                     | 1  |              | Stra                | ata Description        |                     |      |
| 0                                 | Water         | Depth<br>0.05 - 0.10 | Type & No.<br>LB 1        | Records                  | Depth                 | Туре        | Records           | (Thickness     | )           | ******                | (MADE GROU                               | JND)                | Mair   |              |                     |                        |                     |      |
| - 14 Mar 22                       | 2 0800<br>Dry | 0.10<br>0.20         | D 2<br>ES 3               |                          | 0.20                  | PID         | 0.2 mm/ (Test 1)  | (0.25          | 5)          |                       | Grass over fir                           | m light brown       | slightly sandy slightly gravelly CLAY with<br>of flint and chalk.                  | frequent ro  | ootlets. Sand is    | s fine. Gravel is suba | angular to          |      |
| -                                 |               | 0.20                 | LB 4                      |                          | 0.20                  |             | 0.2 ppmv (Test 1) | 0.25           | +56.93      |                       | (MADE GROU                               | JND)                |  |              | One of the state of |                        | 1 f                 | -    |
| -                                 |               | 0.40                 | D 5                       |                          |                       |             |                   |                |             |                       | flint, chalk and                         | d red brick frag    | gish brown gravelly CLAY with low cobble<br>gments. Cobbles are subangular (300x20 | ox150mm)     | of mudstone.        | ngular to subrounded   | a line to coarse of |      |
| -                                 |               | 0.60                 | ES 6                      |                          | 0.60                  | PID         | 0.0 ppmv (Test 2) | (0.6           | 5)          |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               | 0.70 - 0.80          | LB 7                      |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   | 0.90           | +56.28      |                       |  |                     |  |              |                     |                        |                     |      |
| 1 —                               |               | 1.00                 | D 8                       |                          |                       |             |                   | 0.50           | 100.20      | '                     | (MADE GROU<br>Firm grey mot              | ttled brownish      | orange slightly sandy gravelly CLAY with   | occasiona    | al wood fragme      | ents (150x150x90mm     | n). Sand is fine.   |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       | Gravel is suba                           | angular to sub      | rounded fine to coarse of red brick, flint a                                       | and mudstor  | ne.                 |                        |                     |      |
| -                                 |               | 1.20                 | ES 9                      |                          | 1.20                  | PID         | 0.0 ppmv (Test 3) |                |             |                       |  |                     |  |              |                     |                        |                     |      |
|                                   |               |                      |                           |                          |                       |             |                   | (1.10          | ))          |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               | 1.60 - 1.70          | B 10                      |                          |                       |             |                   |                | ,           |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               | 1.70                 | D 11                      |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     | 1.70 |
| -                                 |               | 1.80                 | ES 12                     |                          | 1.80                  | PID         | 0.0 ppmv (Test 4) |                |             |                       |  |                     |  |              |                     |                        |                     | (36) |
| 2 —                               |               |                      |                           |                          |                       |             |                   | 2.00           | +55.18      | ,                     |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       | (MADE GROU<br>Firm light bluis<br>brick. |                     | y sandy gravelly CLAY. Sand is fine. Grav  | vel is suban | ngular to subro     | ounded fine to mediu   | m of chalk and red  |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       | brick.                                   |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               | 2.50 - 2.70          | LB 13                     |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
|                                   |               |                      |                           |                          |                       |             |                   | (1.50          | ))          |                       |  |                     |  |              |                     |                        |                     |      |
| 3 —                               |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               | 3.50 - 3.80          | LB 14                     |                          |                       |             |                   | 3.50           | +53.68      | ;                     | (MADE GROU                               |                     |  |              |                     |                        |                     | -    |
| -<br>-<br>14 Mar 22               | 2 1700        |                      |                           |                          |                       |             |                   | (0.40          | ))          |                       | Firm dark greg<br>fragments.             | yish brown gra      | avelly CLAY. Gravel is subangular to subr  | rounded fine | e to coarse of      | yellow sandstone, ch   | halk and red brick  |      |
| _ 14 Wai 2/                       | Dry           |                      |                           |                          |                       |             |                   |                | ,           |                       |  |                     |  |              |                     |                        |                     |      |
| 4 -                               |               | 3.90                 | ES 15                     |                          | 3.90                  | PID         | 0.0 ppmv (Test 5) | 3.90           | +53.28      | ; ********            |  |                     | END OF EXPLOR  | ATORY HOLE   |                     |                        |                     | +    |
|                                   |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
|                                   |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| -                                 |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| 5 —                               |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
|                                   |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  |              |                     |                        |                     |      |
| eneral Remark                     | s             |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  | Stability    | Stable              |                        |                     |      |
|                                   |               |                      |                           |                          |                       |             |                   |                |             |                       |  |                     |  | Shoring      | N/A                 |                        |                     |      |
|                                   |               |                      |                           |                          | -                     |             |                   |                |             |                       |  |                     |  | Weather      | Sunny               |                        |                     |      |
| l <b>otes</b><br>or explanation o | fsymbols      | and abbreviation     | ns see Kev to E           | xploratory Hole Record   | s. All                | oject       | Gatwick Northe    | ern Runway P   | roject (NRP | )                     |  |                     |  | Status       |                     |                        | Scale 1:25          |      |
| lepths and reduc                  | ed levels     | in metres. Stratu    | im thickness giv          | ven in brackets in depth | column. Pro           | oject No.   | D2001-22          | ction T/A Tore | nr Woodrow  |                       |  |                     |  |              | FINA                | AL.                    | Printed 22 Jul      |      |
|                                   |               |                      |                           |                          | Ca                    | rried out f | or VINCI Constru  | cuon I/A Tayle | vvoodrow    |                       |  |                     |  |              |                     |                        | © Copyright SC      | COTE |

|  |   |                |      | SOCOTEC                             |
|--|---|----------------|------|-------------------------------------|
| arks   | Ground Leve<br>Coordinates<br>National Grid |                | E    | 57.18 mOD<br>527857.23<br>141970.77 |
| Detail   | I   | Water<br>Entry | Bacl | kfill                               |
| 70-1.80 Medium cobble concrete. C<br>50x230x100mm) of dark grey muds | obbles are angular<br>tone.                 | 1 平            | 3.90 |                                     |
| Groundwater Entries<br>No. Depth Remarks<br>1 1.70                   |   |                |      | Sealed                              |
| 14:17:03<br>EC UK Limited  |   | <b>P805</b>    |      |                                     |

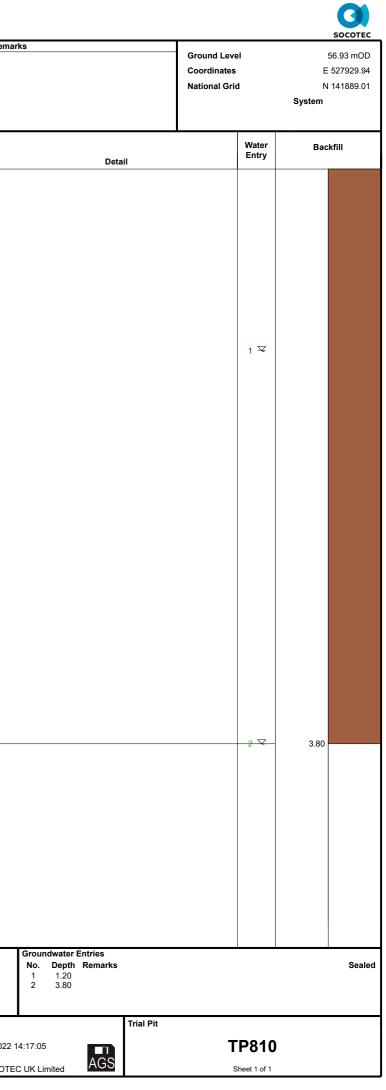
| Ch               | ecked       | <b>Dep</b><br>0.00 - |                      | <b>Dates</b><br>r 22 - 16 Mar 22 | 2  | Meth<br>Machine excav |                          | pit.                         | Equipm<br>JCB 30 |            | Rig Crew<br>Labourers | Logger<br>KD                       | Logged<br>16 Mar 22    | Dimensions and Orientation                  | Dep                 | th Rema         | arks             | Depth Related       | l Rema |
|------------------|-------------|----------------------|----------------------|----------------------------------|--|-----------------------|--------------------------|------------------------------|------------------|------------|-----------------------|------------------------------------|------------------------|---|---------------------|-----------------|------------------|---------------------|--------|
|                  | СР          | 0.00                 |                      |                                  | -  |                       | atou that p              |                              |                  |            | Labouroro             |                                    |                        | C   | Dep                 |                 |                  |                     |        |
| Ар               | proved      | 1                    |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        | Width 3.30 m B □ D ■                        | 219<br>(Deg)        |                 |                  |                     |        |
|                  | СР          |                      |                      |                                  |  | -                     |                          |                              |                  |            |                       |                                    |                        | Longar 4.00 m A                             |                     |                 |                  |                     |        |
|                  | Date        | Time                 |                      | Sample                           |  |                       | Field                    |                              | Depth            | Level      | Legend                |                                    |                        |   |                     | Strata Des      | scription        |                     |        |
| 0 —              |             | Water                | Depth<br>0.05 - 0.10 | Type & No.<br>LB 1               | Records  | Depth                 | Туре                     | Records                      | (Thickness)      |            |                       | (MADE GRO                          |                        | Main  |                     |                 |                  |                     |        |
| -                | 16 Mar 22   | 0800<br>Dry          | 0.10<br>0.20         | D 2<br>ES 3                      |  |                       |                          |                              | (0.25)           |            |                       | Brown slightly<br>chalk.           | y clayey slightl       | y gravelly fine SAND with frequent rootlets | s. Gravel is subrou | inded to round  | ded fine to coa  | rse of flint and    |        |
| -                |             |                      | 0.30 - 0.40          | LB 4                             |  |                       |                          |                              | 0.25             | +57.10     |                       | (MADE GRO<br>Firm light bro        | wn slightly sar        | ndy gravelly CLAY. Gravel is subangular to  | subrounded fine     | o coarse of re  | ed brick, chalk  | and flint. Rare     | 1      |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       | fragments (up                      | o to 20x50x90i         | nm) of steel reinforcement bars.            |                     |                 |                  |                     |        |
| -                |             |                      | 0.60                 | D 5                              | -  | 0.55                  | HV                       | p 138kPa, r 111kPa           |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      | 0.80                 | ES 6                             | _  |                       |                          |                              | (0.95)           |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| 1                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      | 1.30 - 1.40          | LB 7                             |  |                       |                          |                              | 1.20             | +56.15     |                       | (MADE GRO                          |                        | layey subangular to subrounded fine to co   |                     | white chalk wit | ith occasional f | ragments (up to     | -      |
| -                |             |                      | 1.40                 | D 8                              |  |                       |                          |                              | (0.50)           |            |                       | 50x110x50mr                        | n of timber).          |   |                     |                 |                  | raginents (up to    |        |
| -                |             |                      | 1.50<br>1.50         | W 1<br>ES 9                      | -  |                       |                          |                              | (0.30)           |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              | 1.70             | +55.65     |                       | (MADE GRO                          | UND)                   |   |                     |                 |                  |                     | _      |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       | Stiff dark grey<br>brick and flint | yish brown slig        | htly sandy slightly gravelly CLAY. Sand is  | fine to coarse. Gra | avel is angula  | r to subrounde   | d fine to coarse of |        |
| 2 —              |             |                      | 2.00 - 2.40          | LB 10                            |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              | (1.30)           |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      | 2.50                 | D 11                             |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      | 2.60                 | ES 12                            |  |                       | -                        |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              | 2.00             | . 54.95    |                       |                                    |                        |   |                     |                 |                  |                     |        |
| 3 —              |             |                      |                      |                                  |  |                       |                          |                              | 3.00             | +04.00     |                       | (MADE GRO<br>Firm dark blu         | UND)<br>ish grey grave | lly CLAY. Gravel is subangular to subroun   | ded fine to mediur  | n of chalk and  | d red brick and  | coal.               |        |
| -                |             |                      | 3.20 - 3.40          | LB 13                            | -  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              | (0.80)           |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                | 16 Mar 22   | 1700                 | 3.50                 | D 14                             |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                | TO IVIAI 22 | Dry                  |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      | 3.80                 | ES 15                            |  |                       |                          |                              | 3.80             | +53.55     | *******               |                                    |                        | END OF EXPLORA                              | TORY HOLE           |                 |                  |                     | -      |
| 4 —              |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| -                |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| 5 —              |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  |                     |        |
| Genera           | I Remarks   | ;                    | _                    | _                                |  | _                     |                          |                              | _                |            |                       | _                                  | _                      |   | Stability St        | able            | _                |                     | _      |
|                  |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   | Shoring N/          | A               |                  |                     |        |
|                  |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     | inny            |                  |                     |        |
| Notes<br>For exp | lanation of | symbols a            | and abbreviatio      | ns see Key to E                  | Exploratory Hole Records<br>ven in brackets in depth | s. All                | oject                    | Gatwick Northe               | ern Runway Pro   | ject (NRP) |                       |                                    |                        |   | Status              |                 |                  | Scale 1:25          | 1000-  |
| depths           | and reduce  | ed levels ir         | n metres. Stratu     | m thickness giv                  | ven in brackets in depth                             |                       | oject No.<br>rried out f | D2001-22<br>or VINCI Constru | ction T/A Taylor | Woodrow    |                       |                                    |                        |   |                     | FINAL           |                  | Printed 22 Ju       |        |
|                  |             |                      |                      |                                  |  |                       |                          |                              |                  |            |                       |                                    |                        |   |                     |                 |                  | © Copyright S0      | COTE   |



| Checked               | <b>Dept</b>           |                                   | Dates<br>22 - 23 Feb 22             | Ma  | Method<br>chine excavate | d trial pit.            |                       | Equipment<br>3CX JCB       | Rig Crew | Logger         Logged           BP         23 Feb 22 | Dimensions and Orientation   | n Depth                 | Remarks           | Depth Related                | Remarks                                       | Ground Level  | 1              |                          | <b>SOCOTEC</b> |
|-----------------------|-----------------------|-----------------------------------|-------------------------------------|---|--------------------------|-------------------------|-----------------------|----------------------------|----------|--|--|-------------------------|-------------------|------------------------------|---|---------------|----------------|--------------------------|----------------|
| СР                    |                       |                                   |                                     |   |                          | ·                       |                       |                            |          |  | c  | 200                     |                   |                              |   | Coordinates   |                | E                        | 527873.11      |
| Approved              |                       |                                   |                                     |   |                          |                         |                       |                            |          |  | Width 0.50 m B D D   |                         |                   |                              |   | National Grid |                | N <sup>·</sup><br>System | 141939.61      |
| СР                    |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   | L             |                |                          |                |
|                       | Time<br>Water         | Depth                             | Samples<br>Type & No.               |   | Depth                    | Field Tests<br>Type Rec | ords                  | Depth Level<br>(Thickness) | Legend   |  | Mai  |                         | Strata Descrip    | tion                         | Detail  |               | Water<br>Entry | Back                     | cfill          |
| 0<br>- 23 Feb 22      |                       | 0.10 - 0.20                       | B 1                                 | Records   |                          |                         | 0103                  | (0.20)                     |          | (TOPSOIL)<br>Dark brown slightly gravelly            | CLAY with frequent rootlets. Gravel is an  |                         | e to coarse of br | own flint.                   |   |               |                |                          |                |
| -                     | Dry                   | 0.25                              | ES 2                                | _   | 0.25                     | HV p 64kPa              | , r 26kPa             | 0.20 +57.43                |          | (MADE GROUND)  |  |                         |                   |                              | -   |               |                |                          |                |
| -                     |                       | 0.30                              | D 3                                 |   |                          |                         |                       | (0.25)<br>0.45 +57.18      |          | angular (up to 300x150x150                           | ith medium cobble content. Gravel is an<br>mm) of red brick, concrete and flint. | gular to subangular ti  | ne to coarse of   | red brick. Cobbles are       |   |               |                |                          |                |
| -                     |                       | 0.50<br>0.60                      | ES 4<br>D 5                         |   |                          |                         |                       | 0.43 137.10                |          | (MADE GROUND)<br>Firm brown slightly gravelly        | CLAY. Gravel is angular to subrounded f  | fine to medium of flint | , chalk, brick an | d concrete.                  |   |               |                |                          |                |
| -                     |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| -                     |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              | 0.90 Metal rod spring (600x200x200mm).        |               |                |                          |                |
| 1                     |                       |                                   |                                     |   |                          |                         |                       | (1.35)                     |          |  |  |                         |                   |                              | 1.10 Concrete boulder (400x300x300mm)         |               |                |                          |                |
|                       |                       | 1.20                              | B 6                                 | -   |                          |                         |                       | (1.55)                     |          |  |  |                         |                   |                              |   |               |                |                          |                |
|                       |                       | 1.30                              | D7                                  |   | 1.40                     | HV p 104kPa             | a, r 46kPa            |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
|                       |                       | 1.60                              | ES 8                                |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| -                     |                       |                                   |                                     |   |                          |                         |                       | 4.00                       |          |  |  |                         |                   |                              |   |               |                |                          |                |
| -                     |                       | 1.80 - 2.00                       | В9                                  |   |                          |                         |                       | 1.80 +55.83                |          | (MADE GROUND)<br>Stiff dark grey slightly gravel     | ly CLAY. Gravel is angular to subangula  | r fine to medium of fli | nt and red brick  |                              |   |               |                |                          |                |
| 2 —                   |                       | 2.10                              | D 10                                | -   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
|                       |                       | 2.30                              | ES 11                               |   | 2.20                     | HV p 136kPa             | a, r 53kPa            |                            |          |  |  |                         |                   |                              | 2.20-2.90 Frequent organic material.          |               |                |                          |                |
| -                     |                       | 2.30                              | ESTI                                |   |                          |                         |                       | (1.10)                     |          |  |  |                         |                   |                              |   |               |                |                          |                |
| -                     |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| -                     |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| -                     |                       |                                   |                                     |   |                          |                         |                       | 2.90 +54.73                |          | Stiff dark grey mottled bluish                       | grey CLAY with frequent fragments of c   | organic material.       |                   |                              | -   |               | 1 🌫            |                          |                |
| 3 —                   |                       | 3.10 - 3.40                       | B 12                                | _   |                          |                         |                       |                            |          | (Possible MADE GROUND)                               |  |                         |                   |                              |   |               |                |                          |                |
|                       |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| -                     |                       |                                   |                                     |   | 3.40                     | HV p 155kPa             | a, r 52kPa            |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| -                     |                       | 3.50<br>3.60                      | D 13<br>ES 14                       |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
|                       |                       |                                   |                                     |   |                          |                         |                       | (1.55)                     |          |  |  |                         |                   |                              | 3.80-4.45 Becoming bluish grey with rare orga | nic material  |                |                          |                |
|                       |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| 4 —                   |                       | 4.00 - 4.20                       | B 15                                |   | 4.10                     | HV p 176kPa             | a, r 65kPa            |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| 23 Feb 22             | 1700                  | 4.30                              | D 16                                |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
|                       | Dry                   | 4.40                              | ES 17                               |   |                          |                         |                       | 4.45 +53.18                |          |  | END OF EXPLOR  |                         |                   |                              |   |               |                | 4.45                     |                |
|                       |                       |                                   |                                     |   |                          |                         |                       |                            |          |  | END OF EXPLOR  | STOLE                   |                   |                              |   |               |                |                          |                |
|                       |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
|                       |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| 5 —                   |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |
| General Remarks       |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  | Stability Unst          | table             |                              | Groundwater Entries<br>No. Depth Remarks      |               |                |                          | Sealed         |
|                       |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  | Shoring Non             | e                 |                              | 1 2.90 Slow seepage                           |               |                |                          |                |
| Notes                 |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  | Weather Dry Status      |                   |                              | Trial Pit                                     |               |                |                          |                |
| For explanation of sy | mbols ar<br>levels in | nd abbreviation<br>metres. Stratu | s see Key to Ex<br>n thickness give | ploratory Hole Records. All<br>in brackets in depth colur | Projec                   |                         | twick North<br>001-22 | ern Runway Project (NRP    | )        |  |  |                         | INAL              | Scale 1:25<br>Printed 22 Jul |   | т             | P809           |                          |                |
| ,                     |                       |                                   |                                     |   |                          |                         |                       | iction T/A Taylor Woodrow  |          |  |  |                         | -                 |                              | 2022 14:17:04<br>COTEC UK Limited             |               | neet 1 of 1    |                          |                |
|                       |                       |                                   |                                     |   |                          |                         |                       |                            |          |  |  |                         |                   |                              |   |               |                |                          |                |



| Ch      | ecked       |             | pth                 | Dates               |                         | Meth         |                           |                               | Equipm           |           | Rig Crew  | Logger                                     | Logged                  | Dimensions and Orientation                   |                             | 1-                      | Depth Related Rema  |
|---------|-------------|-------------|---------------------|---------------------|-------------------------|--------------|---------------------------|-------------------------------|------------------|-----------|-----------|--|-------------------------|--|-----------------------------|-------------------------|---------------------|
|         | СР          | 0.00        | - 3.80 15 1         | Mar 22 - 15 Mar 22  | 2                       | Machine exca | vated trial p             | DIT.                          | JCB 30           | X         | Labourers | KD   | 15 Mar 22               |  | Depth                       | Remarks                 |                     |
|         | proved      | -           |                     |                     |                         |              |                           |                               |                  |           |           |  |                         | Width 3.60 m B D ➡ ,                         | 90                          |                         |                     |
|         | СР          |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         | Length 4.50 m A                              | Deg)                        |                         |                     |
|         | Date        | Time        |                     | Sample              | S                       |              | Field                     | Tests                         | Depth            | Level     | Legend    |  |                         |  | <b>I</b> ;                  | Strata Description      |                     |
| 0 —     |             | Water       | Depth               | Type & No.          | Records                 | Depth        | Туре                      | Records                       | (Thickness)      |           | ******    | (1155.050)                                 |                         | Main   |                             |                         |                     |
| -       | 15 Mar 22   |             | 0.05<br>0.10        | LB 1<br>D 2         |                         |              |                           |                               |                  |           |           |  | UND)<br>m brown sligh   | tly sandy gravelly CLAY. Sand is fine. Grave | l is subangular to s        | ubrounded fine to coars | se of brick, chalk  |
| -       |             | Dry         | 0.20                | ES 3                |                         | 0.20<br>0.20 | PID<br>HV                 | 0.0 ppmv<br>p 113kPa, r 22kPa | (0.40)           |           |           | and flint.                                 |                         |  |                             |                         |                     |
|         |             |             | 0.45 - 0.60         | ) LB 4              |                         |              |                           |                               | 0.40             | +56.53    |           | (MADE GROU<br>Firm light brou<br>concrete. | UND)<br>wn slightly gra | velly sandy CLAY. Sand is fine to coarse. G  | avel is subangular          | to subrounded fine to n | nedium of flint and |
| -       |             |             | 0.70<br>0.80        | D 5<br>ES 6         |                         | 0.80         | PID                       | 0.0 ppmv                      | (0.60)           |           |           |  |                         |  |                             |                         |                     |
| -       |             |             | 0.00                | 200                 |                         | 0.00         |                           | 0.0 pp                        |                  |           |           |  |                         |  |                             |                         |                     |
| 1 -     |             |             | 1 40 4 00           |                     |                         |              |                           |                               | 1.00             | +55.93    |           | (MADE GRO                                  | UND)                    | ey and orange clayey GRAVEL. Gravel is su    | ongular to subrou           | ndad fina ta madium of  | maaadam             |
| -       |             |             | 1.10 - 1.20<br>1.20 | ) LB 7<br>W 1       |                         | 1.20         | PID                       | 0.0 ppmv                      |                  |           |           | T IIII IIgiit bio                          | wit mottled gre         | y and orange dayey Grovell. Graveris su      | bangular to subrou          | nded line to medium of  | macadam.            |
| -       |             |             | 1.20<br>1.25        | ES 8<br>D 9         |                         |              |                           |                               | (0.60)           |           |           |  |                         |  |                             |                         |                     |
| -       |             |             | 1.40 - 1.50         |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             | 1.55<br>1.60        | D 11<br>ES 12       |                         | 1.60         | PID                       | 0.0 ppmv                      | 1.60             | +55.33    |           | (MADE GRO                                  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           | Brown sandy                                | clayey subanç           | gular to subrounded fine to medium GRAVE     | of macadam. San             | d is fine to medium.    |                     |
| -       |             |             |                     |                     |                         |              |                           |                               | (0.50)           |           |           |  |                         |  |                             |                         |                     |
| 2 —     |             |             |                     |                     |                         |              |                           |                               | 2.10             | +54.83    |           | Stiff brownish                             | orange mottle           | d bluish grey CLAY.                          |                             |                         |                     |
| -       |             |             | 2.20 - 2.40         | ) LB 13             |                         |              |                           |                               |                  |           |           | (WEALD CLA                                 |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           | <br>      |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             | 2.80                | D 14                |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| 3 —     |             |             | 3.00                | ES 15               |                         | 3.00         | PID                       | 0.0 ppmv                      | (1.70)           |           | <br>      |  |                         |  |                             |                         |                     |
| -       |             |             | 3.20 - 3.40         | ) LB 16             |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       | 15 Mar 22   | 1700<br>Dry | 3.60 - 3.80         | ) LB 17             |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             | 3.80                | ES 18               |                         | 3.80         | PID                       | 0.0 ppmv                      | 3.80             | +53.13    |           |  |                         | END OF EXPLORATO                             | RY HOLE                     |                         |                     |
| 4 —     |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
|         |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| -       |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
| 5 —     |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  |                             |                         |                     |
|         | l Remarks   |             |                     |                     |                         | 1            | 1                         | I                             | 1                |           |           |  |                         |  |                             |                         | 1                   |
| Termin  | ation Reaso | on: Termi   | nated under o       | client instruction. |                         |              |                           |                               |                  |           |           |  |                         |  | Stability Stable            | e                       |                     |
|         |             |             |                     |                     |                         |              |                           |                               |                  |           |           |  |                         |  | Shoring N/A<br>Veather Sunn | v                       |                     |
| Notes   |             |             |                     |                     |                         | - 1          |                           |                               |                  |           |           |  |                         |  | Status                      | ,                       | 1                   |
| For exp | anation of  | symbols     | and abbrevia        | tions see Key to E  | xploratory Hole Records | s. All       | oject                     |                               | ern Runway Pro   | ject (NRP | )         |  |                         |  |                             |                         | Scale 1:25          |
| depths  | and reduce  | ed levels i | n metres. Stra      | atum thickness giv  | en in brackets in depth | column. Pro  | oject No.<br>Irried out f | D2001-22<br>or VINCI Constru  | ction T/A Taylor | Woodrow   |           |  |                         |  | FI                          | NAL                     | Printed 22 Jul 2022 |
|         |             |             |                     |                     |                         |              | ou out l                  |                               |                  |           |           |  |                         |  |                             |                         | © Copyright SOCOTE  |



| Checked                                 | Dep<br>0.00 -           | 1.20 27 Apr                               | Dates<br>22 - 27 Apr 22           | 2   | Meth<br>Hand dug ins | spection pit              | t   | Equipment<br>Hand tools |                 | ew Loge<br>KE         | D 27  | ogged<br>Apr 22 | Depth                | ole<br>Dia. (mm) | Cas<br>Depth | ing<br>Dia. (mm) | Depth                          | Depth Related Remarks<br>Remarks  |  | Ground Lev                | vel          | 58.90 mOD                  |
|---|-------------------------|---|-----------------------------------|---|----------------------|---------------------------|---|-------------------------|-----------------|-----------------------|-------|-----------------|----------------------|------------------|--------------|------------------|--------------------------------|---|--|---------------------------|--------------|----------------------------|
| CP<br>Approved                          | 1.20 -                  | 5.45 27 Apr                               | 22 - 27 Apr 22                    | 2   | Dynamic window       | viess samp                | bing                                      |                         |                 | V                     | J 28  | Apr 22          | 2.00<br>3.00<br>4.00 | 117<br>101<br>87 |              |                  |                                |   |  | Coordinate<br>National Gr |              | E 528922.46<br>N 141597.92 |
| CP                                      |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 | 4.50<br>5.00         | 77<br>67         |              |                  |                                |   |  |                           |              | System                     |
| Date                                    | Time                    |   | Sample                            | es  |                      | Field                     | Tests                                     | Samp / Test             | Coring<br>Depth | TCR %<br>SCR %<br>RQD | Water | r added         |                      | Depth            | Level        | Legend           |                                | Strata Description  |  | l                         | Water        | Backfill                   |
| 0 - 27 Apr 22                           | <b>Water</b><br>0800    | <b>Depth</b><br>0.10                      | Type & No.<br>D 1                 | Records   | Depth                | Туре                      | Records                                   | Casing Water            | (Diameter)      | RQD<br>%              | Flush | n details       |                      | (Thickness       | -            |                  |                                | Main<br>DE GROUND)  | Detail   | ir<br>C                   | Entry        | Raised                     |
| 0.00                                    | Dry                     | 0.30<br>0.50                              | ES 3<br>D 4                       |   | 0.30<br>0.50         | PID<br>HV                 | 0.0 ppmv (Test 1)<br>p 135kPa, r 98kPa    |                         |                 |                       |       |                 |                      | (0.4<br>0.45     | 5)<br>+58.45 | ;                | subangular to                  | ravelly fine to medium SAND with frequent rootlets. Gravel is subrounded fine to coarse of flint and sandstone. | _  |                           |              | 0.50                       |
|   |                         | 0.60<br>0.70 - 0.80                       | ES 5<br>B 6                       |   | 0.60                 | PID                       | 0.0 ppmv (Test 2)                         |                         |                 |                       |       |                 |                      | (0.7             | 5)           |                  | (WEALD CLA                     | Y FORMATION)  |  |                           |              |                            |
|   |                         | 1.20 - 1.65<br>1.20 - 2.00                | D 8<br>B 10                       |   | 1.20 - 1.65<br>1.20  | SPT S<br>PID              | N=13 (2,1/3,3,3,4)<br>ID DART386 Er 56%   | 0.00 Dry                |                 |                       |       |                 |                      | 1.20             | +57.70       | <br>72727        | Firm to stiff m                | ottled light grey and orangish brown sandy CLAY with  | _  |                           |              |                            |
|   |                         | 1.20<br>1.20<br>1.20 - 2.00<br>1.50       | ES 7<br>DYS<br>D 9                | Diameter 117mm                                      | 1.20                 |                           | 0.0 ppmv (Test 3)                         |                         |                 |                       |       |                 |                      | (0.9             | 8)           |                  | rootlets. Sand                 | ckets (up to 50x30mm) of firm to stiff black clay and rare<br>is fine to medium.<br>Y FORMATION)                |  |                           |              | 1.70                       |
| 2 —                                     |                         | 2.00 - 2.45<br>2.00 - 3.00                | D 11<br>B 13                      |   | 2.00 - 2.45          | SPT S                     | N=18 (2,3/4,4,4,6)<br>ID DART386 Er 56%   | 0.00 Dry                |                 |                       |       |                 |                      |                  |              |                  |                                |   | 1.85 Pocket of black a sand. Sand is fine to a |                           |              |                            |
|   |                         | 2.00 - 3.00<br>2.00 - 3.00<br>2.50        | DYS                               | Diameter 101mm                                      |                      |                           | ID DART300 EI 30%                         |                         |                 |                       |       |                 |                      | 2.18 (0.5        | +56.72<br>0) |                  | Stiff light grey<br>(WEALD CLA | mottled light brown CLAY.<br>Y FORMATION)   | _  |                           |              |                            |
|   |                         | 2.00                                      | 012                               |   |                      |                           |   |                         |                 |                       |       |                 |                      | 2.68             | +56.22       | !                | Very stiff pinki               | sh brown speckled black CLAY.<br>Y FORMATION)   | _  |                           |              |                            |
| 3 —                                     |                         | 3.00 - 3.45<br>3.00 - 4.00<br>3.00 - 4.00 | D 14<br>B 16<br>DYS               | Diameter 87mm                                       | 3.00 - 3.45          | SPT S                     | N=28 (17,14/8,7,6,7)<br>ID DART386 Er 56% | 0.00 Dry                |                 |                       |       |                 |                      | (0.7             | 8)           |                  |                                |   |  |                           |              |                            |
|   |                         | 3.50                                      | D 15                              | Diamotor or min                                     |                      |                           |   |                         |                 |                       |       |                 |                      | 3.46             | +55.44       |                  | Very stiff light               | grey CLAY.<br>Y FORMATION)  | _  |                           |              |                            |
| 4                                       |                         | 4.00 - 4.45                               | D 17                              | _   | 4.00 - 4.38          | SPT S                     | 50 (9,11/14,21,15 for                     | 0.00 Dry                |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
|   |                         | 4.00 - 5.00<br>4.00 - 4.50                | B 19<br>DYS                       | Diameter 77mm                                       |                      |                           | 75mm)<br>ID DART386 Er 56%                |                         |                 |                       |       |                 |                      | (1.0)            |              |                  | -                              |   |  |                           |              |                            |
|   |                         | 4.50<br>4.50 - 5.00                       | D 18<br>DYS                       | Diameter 67mm                                       |                      |                           |   |                         |                 |                       |       |                 |                      | (1.9             | 9)           |                  |                                |   |  |                           |              |                            |
| 5 —                                     |                         | 5.00 - 5.45                               | D 20                              |   | 5.00 - 5.45          | SPT S                     | N=43 (6,5/6,8,11,18)<br>ID DART386 Er 56% | 0.00 Dry                |                 |                       |       |                 |                      |                  |              |                  | -                              |   |  |                           |              | SP                         |
| 27 Apr 22<br>- 0.00                     | 1800<br>Dry             |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      | 5.45             | +53.45       | ;                |                                | END OF EXPLORATORY HOLE   |  |                           |              | 5.45                       |
| 6 —                                     |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
|   |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
|   |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
| 7 —                                     |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
|   |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
|   |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
| 8 —                                     |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
|   |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
| 9 —                                     |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
|   |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
| -                                       |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
| 10 —                                    |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
| General Remarks                         | I                       |   |                                   | 1   |                      |                           |   |                         | •               |                       |       |                 |                      |                  |              |                  | Boring / Chiselli<br>Depths Du | ng Groundwater I<br>Iration (mins) Tool No. Depth   |  |                           |              | Sealed                     |
|   |                         |   |                                   |   |                      |                           |   |                         |                 |                       |       |                 |                      |                  |              |                  |                                |   |  |                           |              |                            |
| Notes                                   |                         |   |                                   |   | Pro                  | oject                     | Gatwick Northe                            | ern Runway Projec       | t (NRP)         |                       |       |                 |                      |                  |              | Status           | ;                              | Scale 1:50  | Borehole                                       |                           |              |                            |
| For explanation of s depths and reduced | ymbols a<br>I levels in | and abbreviation<br>metres. Stratur       | s see Key to E<br>n thickness giv | Exploratory Hole Record<br>ven in brackets in depth | column. Pro          | oject No.<br>rried out fe | D2001-22                                  | ction T/A Taylor Wo     |                 |                       |       |                 |                      |                  |              |                  | FINA                           |   | AGS  | V                         | VS101        |                            |
| L                                       |                         |   |                                   |   |                      |                           |   |                         | *               |                       |       |                 |                      |                  |              |                  |                                | © Copyright SOCOTEC UK Limited  |  |                           | Sheet 1 of 1 | ]                          |



| Checked                                 | Dep           |                            | Dates                          |                              | Meth                           |   |                   | Equipment                   |              |                   | ogger    | Logged                           | н             | ole                 | Cas       | ing       |                  |   | Depth           | Related Remark     | s                |                      | Г — —                       |                |        | SOCOTEC                |
|---|---------------|----------------------------|--------------------------------|------------------------------|--------------------------------|---|-------------------|-----------------------------|--------------|-------------------|----------|----------------------------------|---------------|---------------------|-----------|-----------|------------------|---|-----------------|--------------------|------------------|----------------------|-----------------------------|----------------|--------|------------------------|
| СР                                      | 0.00 - 1.20 - | 1.20 16 Mar<br>5.00 16 Mar | 22 - 16 Mar 2<br>22 - 16 Mar 2 | 22<br>22 D                   | Hand dug in:<br>Dynamic window | spection pit                            | bling             | Hand tools<br>C130 Dart rig | DR<br>DR     |                   | LI<br>LI | Logged<br>16 Mar 22<br>16 Mar 22 | Depth<br>2.00 | Dia. (mm)<br>87     | Depth     | Dia. (mm) | Depth            | Remarks                                 |                 |                    |                  |                      | Ground Lev                  |                |        | 59.42 mOD              |
| CP                                      |               |                            |                                |                              | ,                              |   | 5                 |                             |              |                   |          |                                  | 3.00<br>4.00  | 77<br>67            |           |           |                  |   |                 |                    |                  |                      | Coordinates<br>National Gri |                |        | 527800.72<br>141936.30 |
| Approved                                |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  | 4.00<br>5.00  | 57                  |           |           |                  |   |                 |                    |                  |                      | National Of                 | u              | System | 141950.50              |
| CP                                      |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                | -      |                        |
| Date                                    | Time          |                            | Sample                         | es                           |                                | Field                                   | Tests             | Samp / Test                 | Coring       | TCR %<br>SCR %    |          | Water added                      |               |                     |           |           |                  |   |                 | Strata Descrip     | tion             |                      |                             | Matan          |        |                        |
| Casing                                  | Water         | Depth                      | Type & No.                     | Records                      | Depth                          | Туре                                    | Records           | Casing Water                | Depth        | SCR %<br>RQD<br>% |          | Flush details                    |               | Depth<br>(Thickness | Level     | Legend    |                  |   | Main            | onata bosonp       |                  | Detail               | Chise                       | Water<br>Entry | Bacl   | kfill                  |
| 0 - 16 Mar 22                           | 0800          | 0.00 - 0.30                | B 3                            |                              |                                | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                   |                             | (2.12.10000) | /•                |          |                                  |               |                     | .,        |           | (MADE GRO        | OUND) Firm brown<br>Ibangular fine to c | gravelly CLAY   | with frequent roo  | tlets. Gravel is |                      | 0                           |                |        |                        |
| 0.00                                    | Dry           | 0.30<br>0.30               | D 2<br>ES 1                    | -                            |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           | aligulai to su   | ibaligulai lille to c                   | Uarse of brick, | IIIII dhu chdik.   |                  |                      |                             |                |        |                        |
| -                                       |               | 0.00                       |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| 1                                       |               | 1.00                       | ES 4                           | -                            | 1.00                           | PID                                     | 0.0 ppmv (Test 2) |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               | 1.20 - 3.00<br>1.20 - 2.00 | B 4<br>DYS                     | 100% rec, dia 87mm           |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           | *<br>*<br>*      |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| 2 —                                     |               | 2.00 - 3.00                | DYS                            | 90% rec, dia 77mm            |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           | *<br>*<br>*      |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               | (4.5                | 0)        |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  | 2.70 1no. Fragment o | t wood.                     |                |        |                        |
| 3 —                                     |               | 3.00 - 4.00<br>3.00 - 4.00 | ES 5<br>DYS                    | 90% rec, dia 67mm            |                                | -                                       |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           | <<br>2<br>2      |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| 4 —                                     |               | 4.00 - 5.00<br>4.00 - 5.00 | B 6<br>DYS                     | 80% rec, dia 57mm            |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               | 4.00 0.00                  |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               | 4.50                | +54.92    | 2         | (MADE GRO        | OUND)                                   |                 |                    |                  | _                    |                             |                |        |                        |
| -<br>- 16 Mar 22                        | 1700          |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               | (0.3<br>4.85        | +54.57    | ,         | extremely we     | eak chalk.                              |                 | subangular fine to |                  |                      |                             |                |        |                        |
| 5 <u>- 16 Mar 22</u><br>5 <u>- 0.00</u> | Dry           |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               | (0.1                | 5) +54.42 | 2 ******* | fine to mediu    | ım.                                     | ly sandy CLAY   | with occasional ro | ootlets. Sand is |                      |                             |                | 5.00   |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           | (Possible MA     | ADE GROUND)<br>END                      | OF EXPLORATOR   | Y HOLE             |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| 6                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| 7 –                                     |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| 8 —                                     |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| 9 —                                     |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   | ļ             |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| -                                       |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| 10                                      | ļ             |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| General Remarks                         |               |                            |                                |                              |                                |   |                   |                             |              |                   |          | -                                |               |                     |           |           | Boring / Chisell |   | То              |                    | Groundwater E    |                      |                             |                |        | Sealed                 |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           | epths D          | uration (mins)                          | 10              |                    | No. Depth        | itelliaine           |                             |                |        | Sedieu                 |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |
| N-4                                     |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   | -               |                    |                  | <b>I-</b>            |                             |                |        |                        |
| Notes<br>For explanation of s           | symbols a     | and abbreviation           | is see Kev to I                | Exploratory Hole Records     | . All                          | oject                                   |                   | ern Runway Project          | (NRP)        |                   |          |                                  |               |                     |           | Status    |                  |   | Scale           |                    |                  | Borehole             |                             |                |        |                        |
| depths and reduced                      | d levels in   | n metres. Stratu           | m thickness gi                 | iven in brackets in depth of | column. Pro                    | oject No.                               | D2001-22          |                             |              |                   |          |                                  |               |                     |           |           | FINA             | 4L                                      | Printed         | 22 Jul 2022 14     | :19:04           | AGS                  | V                           | VS806          |        |                        |
|   |               |                            |                                |                              | Ca                             | rried out fo                            | or VINCI Construc | ction T/A Taylor Wo         | odrow        |                   |          |                                  |               |                     |           |           |                  |   | © Cop           | yright SOCOTEC     | UK Limited       | AGS                  |                             | Sheet 1 of 1   |        |                        |
|   |               |                            |                                |                              |                                |   |                   |                             |              |                   |          |                                  |               |                     |           |           |                  |   |                 |                    |                  |                      |                             |                |        |                        |



| Checked                 | Dep         | oth              | Dates            |                            | Meth           | od           |                                      | Equipment           | Rig C           | rew L        | ogger | Logged        | Н            | ole        | Cas    | sing      | Depth Related Remarks   | SOCOTEC     |
|-------------------------|-------------|------------------|------------------|----------------------------|----------------|--------------|--------------------------------------|---------------------|-----------------|--------------|-------|---------------|--------------|------------|--------|-----------|---|-------------|
|                         | 0.00 -      | 1.20 16 Mar      | r 22 - 16 Mar 22 | 2                          | Hand dug ins   |              |                                      | Hand tools          | DF              | र 🗌          | LI    | 16 Mar 22     |              | Dia. (mm)  | Depth  | Dia. (mm) | Depth Remarks Ground Level  | 58.52 mOD   |
| CP                      | 1.20 -      | 5.00 16 Mar      | r 22 - 16 Mar 22 |                            | Dynamic window | viess sampli | ng                                   | C130 Dart ri        | g DF            | <            | LI    | 16 Mar 22     | 2.00<br>3.00 | 87<br>77   |        |           | Coordinates   | E 527833.35 |
| Approved                |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               | 4.00         | 67         |        |           | National Grid   | N 141890.09 |
| Approved                |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               | 5.00         | 57         |        |           | Syste   | m           |
| СР                      |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         | <u> </u>    |                  |                  |                            |                |              |                                      |                     |                 | TCR %        |       |               |              |            |        |           |   |             |
| Date                    | Time        |                  | Sample           | es                         |                | Field T      | ests                                 | Samp / Test         | Coring<br>Depth | SCR %<br>RQD |       | Water added   |              | Depth      | Level  | Legend    | Strata Description  | Backfill    |
| 0 Casing                | Water       | Depth            | Type & No.       | Records                    | Depth          | Туре         | Records                              | Casing Water        | (Diameter)      | RQD<br>%     |       | Flush details |              | (Thickness | )      |           | Main Detail S Entry   |             |
| - 16 Mar 22             |             | 0.00 - 0.30      | B 2              | -                          |                |              |                                      |                     |                 |              |       |               |              |            |        |           | (MADE GROUND)<br>Greyish brown gravelly slightly clayey SAND. Gravel is fine to coarse of brick,                                      |             |
| 0.00                    | Dry         | 0.30             | D 3              | -                          | 0.30           | PID          | 0.0 ppmv (Test 1)                    |                     |                 |              |       |               |              |            |        |           | flint and chalk.  | 30          |
| _                       |             | 0.30             | ES 1             |                            |                |              |                                      |                     |                 |              |       |               |              | (1.20      | ור     |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              | (          | - /    |           |   |             |
|                         |             | 1.00             | ES 4             |                            | 1.00           | PID          | 0.0 ppmv (Test 2)                    |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             | 1.20 - 1.95      | B 6              |                            |                |              |                                      |                     |                 |              |       |               |              | 1.20       | +57.32 | 2         |   |             |
|                         |             | 1.20 - 2.00      | DYS              | 100% rec, dia 87mm         |                |              |                                      |                     |                 |              |       |               |              |            |        |           | (MADE GROUND)<br>Firm brown gravelly CLAY. Gravel is angular to subangular fine to coarse of  |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              | (0.75      | 5)     |           | brick and flint.  |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| 2 -                     |             | 1.95 - 3.60      | B 7              |                            |                |              |                                      |                     |                 |              |       |               |              | 1.95       | +56.57 | 7         | (MADE GROUND)   |             |
|                         |             | 2.00 - 3.00      | DYS              | 90% rec, dia 77mm          |                |              |                                      |                     |                 |              |       |               |              |            |        |           | Light grey gravelly silt. Gravel is angular to subangular fine to coarse of extremely weak chalk.                                     | $\sim$      |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           | CAUCILICIY WORA UIDIN.  |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              | (1.6       | 5)     |           |   |             |
| 3 —                     |             | 3.00 - 4.00      | DYS              | 90% rec, dia 67mm          |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| 1                       |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             | 3.60 - 4.65      | B 8              | -                          |                |              |                                      |                     |                 |              |       |               |              | 3.60       | +54.92 | 2         | (MADE GROUND)   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           | Soft greyish brown becoming firm slightly gravelly CLAY. Gravel is angular to<br>subangular fine to coarse of brick, flint and chalk. |             |
| 4 —                     |             | 4.00 - 5.00      | DYS              | 80% rec, dia 57mm          | 4.00 - 4.45    | SPT S        | N=8 (2,1/2,2,2,2)<br>ID SN105 Er 81% | 0.00 Dry            |                 |              |       |               |              | (1.05      | =)     |           |   |             |
|                         |             |                  |                  |                            |                |              | ID SIN 105 EI 61%                    |                     |                 |              |       |               |              | (1.03      | )      |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             | 4.65 - 5.00      | D 9              | -                          |                |              |                                      |                     |                 |              |       |               |              | 4.65       | +53.87 | ,         | Firm brown mottled grey CLAY.   |             |
| - 16 Mar 22<br>5 - 0.00 | 1700<br>Dry |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              | (0.3       |        |           | (WEALD CLAY FORMATION)  |             |
| 5                       |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              | 5.00       | +53.52 | 2         | END OF EXPLORATORY HOLE 5.  | 00          |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| -                       |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| 6 —                     |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| 7 -                     |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| -                       |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| 8 —                     |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| 1                       |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| 9 —                     |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| 10 -                    |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| General Remarks         |             |                  |                  |                            | 1              |              |                                      | I                   | •               |              |       | 1             |              | I          |        |           | oring / Chiselling Groundwater Entries  | 1           |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           | epths Duration (mins) Tool No. Depth Remarks  | Sealed      |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
|                         |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        |           |   |             |
| Notes                   |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        | Status    | Borehole  |             |
| For explanation of s    | symbols a   | and abbreviatior | ns see Key to E  | Exploratory Hole Records   | . All          | oject        |                                      | ern Runway Projec   | t (NRP)         |              |       |               |              |            |        |           | Scale 1:50  |             |
| depths and reduced      | d levels ir | n metres. Stratu | m thickness giv  | ven in brackets in depth o | column. Pro    | oject No.    | D2001-22                             |                     |                 |              |       |               |              |            |        |           | FINAL Printed 22 Jul 2022 14:19:05 WS808  |             |
| 1                       |             |                  |                  |                            | Ca             | rried out fo | r VINCI Constru                      | ction T/A Taylor Wo | odrow           |              |       |               |              |            |        |           | © Copyright SOCOTEC UK Limited AGS Sheet 1 of 1   |             |
| -                       |             |                  |                  |                            |                |              |                                      |                     |                 |              |       |               |              |            |        | -         | · · · ·   |             |



|       |               | SOCOTEC     |
|-------|---------------|-------------|
| narks |               |             |
|       | Ground Level  | 58.52 mOD   |
|       | Coordinates   | E 527833.35 |
|       | National Grid | N 141890.09 |
|       |               | System      |
|       |               |             |
|       |               |             |
|       |               |             |

| Checked                      | <b>Dept</b>    |               | Dates<br>ar 22 - 17 Mar 22 |   | Method<br>Hand dug inspe |                    | Equipmen<br>Hand tools  |                     | ew Loge               |               | Hole<br>Depth Dia. (mr |           | sing<br>Dia. (mm) | Depth                          | Remarks   | Depth Related Rema  | arks                                     | Ground Lev   | rel          |             | SOCOTEC   |
|------------------------------|----------------|---------------|----------------------------|---|--------------------------|--------------------|-------------------------|---------------------|-----------------------|---------------|------------------------|-----------|-------------------|--------------------------------|---|---|--|--------------|--------------|-------------|-----------|
| СР                           | 0.00 - 0       |               |                            |   |                          |                    |                         |                     |                       |               |                        | i) Deptii |                   | Deptil                         | Remarks   |   |  | Coordinates  | 5            | E           | 527878.41 |
| Approved                     |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  | National Gri | id           | N<br>System | 141858.16 |
| СР                           |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              | e jetem     |           |
| Date                         | Time           |               | Samples                    | 5   |                          | Field Tests        | Samp / Test             | Coring              | TCR %<br>SCR %<br>RQD | Water added   | Depth                  | Level     | Legend            |                                |   | Strata Desc   | ription                                  |              | Water        | Back        | kfill     |
| 0 Casing                     | Water          | Depth         | Type & No.                 | Records   | Depth                    | Type Records       | Casing Water            | Depth<br>(Diameter) | RQD<br>%              | Flush details | (Thickn                |           |                   | (MADE GROU                     |   | Main  | Detai                                    | Chis         | Entry        |             |           |
| - 17 Mar 22<br>0.00          | 2 0800<br>Dry  | 0.00 - 0.30   | D 3                        |   | 0.30                     | PID 0.0 ppmv (Test | 1)                      |                     |                       |               |                        |           |                   | Soft becoming<br>Gravel is and | JND)<br>g firm brown slightly s<br>Jlar to subangular fin | silty gravelly CLAY with fre<br>e to coarse of brick, chalk | equent rootlets.                         |              |              |             |           |
|                              |                | 0.30          | ES 1                       |   |                          |                    |                         |                     |                       |               | (                      | 0.86)     |                   |                                |   |   |  |              |              |             |           |
| - 17 Mar 22<br>- <u>0.00</u> | 2 1700<br>Dry  |               |                            |   |                          |                    |                         |                     |                       |               | 0.86                   | +57.1     | 4                 |                                | END OF E  | EXPLORATORY HOLE  |  |              |              | 0.86        |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 2 -                          |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 3 —                          |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 4                            |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| -                            |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 5 —                          |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| -                            |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| -                            |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 6 —                          |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| -                            |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 7 —                          |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| , -<br>-                     |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 8 —                          |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 9                            |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| 10                           |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
| General Remarks              |                | ated at 0.86n | n due to concrete o        | obstruction.  |                          |                    |                         |                     |                       |               |                        |           |                   | Boring / Chiselli<br>Depths Du | ng<br>Iration (mins)                                      | Tool  | Groundwater Entries<br>No. Depth Remarks |              |              |             | Sealed    |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   |  |              |              |             |           |
|                              |                |               |                            |   |                          |                    |                         |                     |                       |               |                        |           |                   |                                |   |   | <u> </u>                                 |              |              |             |           |
| Notes<br>For explanation of  | symbols an     | nd abbreviati | ons see Key to Ex          | ploratory Hole Records.                             | All                      |                    | lorthern Runway Projec  | t (NRP)             |                       |               |                        |           | Status            |                                |   | Scale 1:50  | Borehole                                 |              | NO044        |             |           |
| depths and reduce            | ed levels in r | metres. Strat | tum thickness give         | ploratory Hole Records.<br>n in brackets in depth c |                          |                    | nstruction T/A Taylor W | podrow              |                       |               |                        |           |                   | FINA                           | L   | Printed 22 Jul 2022   |  |              | VS811        |             |           |
| L                            |                |               |                            |   |                          |                    | -                       |                     |                       |               |                        |           |                   |                                |   | © Copyright SOCOTE  | EC UK Limited                            |              | Sheet 1 of 1 |             |           |



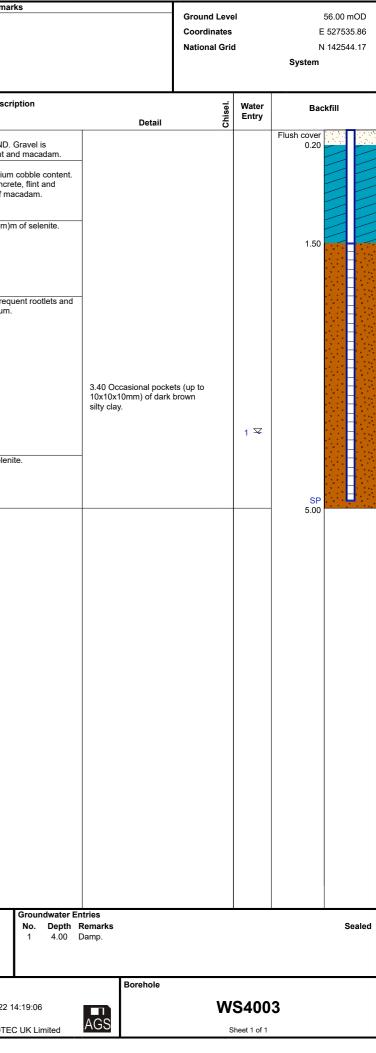
| Checked                                 | <b>Depti</b><br>0.00 - 0   | h<br>).86 17 M                   | Dates<br>ar 22 - 17 Mar 22              |   | Meth<br>Hand dug ins  |                    |                   | Equipment<br>Hand tools |                 | ew Lo                 | ogger<br>Ll | Logged<br>17 Mar 22 | Ho<br>Depth | ole<br>Dia. (mm) | Cas<br>Depth |        | Depth                         | Remarks                                     | Depth Related F  | Remarks                              |           | Ground Leve   | əl           |             | SOCOTEC   |
|---|----------------------------|----------------------------------|---|---|-----------------------|--------------------|-------------------|-------------------------|-----------------|-----------------------|-------------|---------------------|-------------|------------------|--------------|--------|-------------------------------|---|--|--------------------------------------|-----------|---------------|--------------|-------------|-----------|
| СР                                      |                            |                                  |   |   |                       | ·                  |                   |                         |                 |                       |             |                     | - 00111     | ()               | - 3041       | )      | 2 Sptil                       |   |  |                                      |           | Coordinates   |              | E           | 527878.48 |
| Approved                                |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           | National Grid | d            | N<br>System | 141859.24 |
| СР                                      |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| Date                                    | Time                       |                                  | Samples                                 | ;   |                       | Field T            | ests              | Samp / Test             | Coring<br>Depth | TCR %<br>SCR %<br>RQD |             | Water added         |             | Depth            | Level        | Legend |                               |   | Strata I   | Description                          |           | sel.          | Water        | Bac         | kfill     |
| 0 - 17 Mar 22                           | <b>Water</b><br>0800       | <b>Depth</b> 0.00 - 0.30         | Type & No.<br>B 2                       | Records   | Depth                 | Туре               | Records           | Casing Water            | (Diameter)      | %                     |             | Flush details       |             | (Thickness       | 5)           |        | (MADE GRC                     | DUND)                                       | Main   |                                      | Detail    | Chi           | Entry        |             |           |
| 0.00                                    | Dry                        | 0.30<br>0.30                     | D 3<br>ES 1                             | -   | 0.30                  | PID                | 0.0 ppmv (Test 1) |                         |                 |                       |             |                     |             | (0.8             | 2)           |        | Soft becomir<br>angular to su | ng firm brown grave<br>ubangular fine to co | elly CLAY with frequent r<br>oarse of brick, chalk and | ootlets. Gravel is<br>flint.         |           |               |              |             |           |
| <br>17 Mar 22                           | 1700                       | 0.30                             | EST                                     |   |                       |                    |                   |                         |                 |                       |             |                     |             | (0.0             | 0)           |        |                               |   |  |                                      |           |               |              |             |           |
| 1 - 0.00                                | Dry                        |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             | 0.86             | +57.07       |        | ×                             | END   | OF EXPLORATORY HOLE                                    |                                      |           |               |              | 0.86        |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 2 —                                     |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| -                                       |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 3 —                                     |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 4 —                                     |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| -                                       |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 5 —                                     |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| -                                       |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 6 —                                     |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| -                                       |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| -                                       |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 7 —                                     |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| -                                       |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 8 —                                     |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 9 -                                     |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
| 10                                      |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      | -         |               |              |             |           |
| General Remarks<br>Termination Reaso    |                            | ated at 0.86m                    | n due to concrete o                     | obstruction.  |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        | Boring / Chisel<br>Depths D   | ling<br>Juration (mins)                     | Tool   | Groundwater Entrie:<br>No. Depth Rem | s<br>arks |               |              |             | Sealed    |
| Notes                                   |                            |                                  |   |   | Dro                   | piect              | Gatwick Northe    | ern Runway Project      | (NRP)           |                       |             |                     |             |                  |              | Status | ;                             |   | Scale 1:50   |                                      | Borehole  |               |              |             |           |
| For explanation of s depths and reduced | ymbols an<br>I levels in r | nd abbreviation<br>metres. Strat | ons see Key to Ex<br>tum thickness give | ploratory Hole Records<br>on in brackets in depth o | a. All<br>column. Pro | oject<br>oject No. | D2001-22          |                         |                 |                       |             |                     |             |                  |              |        | FIN                           | AL  | Printed 22 Jul 2                                       | 2022 14:19:05                        |           | W             | S811A        | •           |           |
|   |                            |                                  |   |   |                       | rried out fo       | vinci Construct   | ction T/A Taylor Wo     | odrow           |                       |             |                     |             |                  |              |        |                               |   | © Copyright SOC  | 2022 14:19:05<br>COTEC UK Limited    | GS        |               | Sheet 1 of 1 |             |           |
|   |                            |                                  |   |   |                       |                    |                   |                         |                 |                       |             |                     |             |                  |              |        |                               |   |  |                                      |           |               |              |             |           |



| Checked                              | Depth          |                     | Dates<br>22 - 17 Mar 22 |   | Metho<br>Hand dug insp |             |                   | Equipment<br>Hand tools | Rig Cre<br>DR/TC    | w Lo                  | gger<br>Ll | Logged<br>17 Mar 22 | Ho    |            | Cas    |           | Denth                        | Dementer                               | Depth Relate  | d Remarks                                     |                        | Ground Leve   |              | <b>SOCOTEC</b><br>57.99 mOD |
|--------------------------------------|----------------|---------------------|-------------------------|---|------------------------|-------------|-------------------|-------------------------|---------------------|-----------------------|------------|---------------------|-------|------------|--------|-----------|------------------------------|--|---|---|------------------------|---------------|--------------|-----------------------------|
| СР                                   | 0.00 - 0.3     |                     | 22 - 17 Wai 22          |   | Tiano dug ins          | pection pit |                   |                         | Divite              |                       |            |                     | Depth | Dia. (mm)  | Depth  | Dia. (mm) | Depth                        | Remarks                                |   |   |                        | Coordinates   |              | E 527875.60                 |
| Approved                             | 1              |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        | National Grid |              | N 141860.67<br>System       |
| CP                                   |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              | <b>-j</b> -t-t-t            |
| Date                                 | Time           |                     | Samples                 | ,   |                        | Field T     | ests              | Samp / Test             | Coring              | TCR %<br>SCR %<br>RQD | ,          | Water added         |       | Depth      | Level  | Legend    |                              |  | Strat   | ta Description                                |                        |               | Water        | Backfill                    |
| 0 Casing                             |                |                     | Type & No.              | Records   | Depth                  | Туре        | Records           | Casing Water            | Depth<br>(Diameter) | RQD<br>%              |            | Flush details       |       | (Thickness |        | Logona    |                              |  | Main  |   | Detail                 | Chis          | Entry        |                             |
| - 17 Mar 22<br>0.00                  | 0800 0<br>Dry  | 0.00 - 0.30<br>0.30 | B 2<br>D 3              |   | 0.30                   | PID         | 0.0 ppmv (Test 1) |                         |                     |                       |            |                     |       |            |        |           | (MADE GRO<br>Gravel is ang   | UND) Soft becomi<br>ular to subangular | ing firm brown slightly<br>r fine to coarse of bric | v silty gravelly CLAY.<br>k, chalk and flint. |                        |               |              |                             |
|                                      |                | 0.30                | ES 1                    | -   | 0.00                   |             | 0.0 pp (1000 1)   |                         |                     |                       |            |                     |       | (0.9       | 1)     |           |                              |  |   |   |                        |               |              |                             |
| 17 Mar 22<br>0.00                    | 1700<br>Dry    |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       | 0.91       | +57.08 |           |                              |  |   |   |                        |               |              | 0.91                        |
| 1                                    |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       | 0.51       | .01.00 |           |                              | END C                                  | OF EXPLORATORY HOLE                                 |   |                        |               |              | 0.01                        |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 2 —                                  |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 3 —                                  |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 4 —                                  |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 5 —                                  |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| -                                    |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 6 —                                  |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| -                                    |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 7 —                                  |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 8 —                                  |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 9 —                                  |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| 10 —                                 |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| General Remarks<br>Termination Reaso |                | ed at 0.91m c       | due to concrete c       | obstruction   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           | Boring / Chisell<br>epths Du | ing<br>uration (mins)                  | Tool  | Groundwate<br>No. Dept                        | r Entries<br>h Remarks |               |              | Sealed                      |
| romination rieasu                    |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |
| Notes                                | symbole and    | abbreviation        | IS SEE Key to Ex        | nloratory Hole Pocorda                              | Proj                   | ject        | Gatwick Northe    | ern Runway Project      | (NRP)               |                       |            |                     |       |            |        | Status    |                              |  | Scale 1:50  |   | Borehole               |               |              |                             |
| depths and reduced                   | d levels in me | etres. Stratur      | m thickness give        | ploratory Hole Records<br>in in brackets in depth c | column. <b>Pro</b> j   | ject No.    | D2001-22          |                         |                     |                       |            |                     |       |            |        |           | FINA                         | AL.                                    | Printed 22 J  | ul 2022 14:19:06                              | AGS                    | W             | S811B        |                             |
|                                      |                |                     |                         |   | Car                    | ried out fo | r VINCI Construc  | ction T/A Taylor Wo     | odrow               |                       |            |                     |       |            |        |           |                              |  | © Copyright S                                       | SOCOTEC UK Limited                            | AGS                    | S             | Sheet 1 of 1 |                             |
|                                      |                |                     |                         |   |                        |             |                   |                         |                     |                       |            |                     |       |            |        |           |                              |  |   |   |                        |               |              |                             |



| Ch               | ecked             |             | pth                        | Dates                                  | 2                        | Meth                           |                           |                   | Equipment                 | Rig C                                   | rew            | Logger   | Logged                 | н                    | ole                 | Cas                  |                | <u> </u>                        | <b>I-</b> -                                 | Depth Related Remar   |
|------------------|-------------------|-------------|----------------------------|--|--------------------------|--------------------------------|---------------------------|-------------------|---------------------------|---|----------------|----------|------------------------|----------------------|---------------------|----------------------|----------------|---------------------------------|---|---|
|                  | СР                |             |                            | lar 22 - 31 Mar 2<br>lar 22 - 31 Mar 2 |                          | Hand dug ins<br>Oynamic window | pection pit.              | ling.             | Hand tools<br>C130 Dart R |   | R              | VJ<br>BP | 31 Mar 22<br>31 Mar 22 | 2.00                 | Dia. (mm)<br>113    | 2.00                 | Dia. (mm)      | Depth                           | Remarks                                     |   |
| Ар               | proved            | -           |                            |  |                          |                                |                           |                   |                           |   |                |          |                        | 3.00<br>4.00<br>5.00 | 101<br>84<br>76     | 3.00<br>4.00<br>5.00 | 86<br>76<br>66 |                                 |   |   |
|                  | СР                |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        | 0.00                 | 10                  | 0.00                 | 00             |                                 |   |   |
|                  | Date              | Time        |                            | Sample                                 |                          |                                | Field                     | Taata             | Samp / Test               | Coring                                  | TCR %<br>SCR % | ,<br>0   | Water added            |                      |                     |                      |                | <b> </b>                        |   | Strata Descri   |
|                  | Casing            | Water       | Depth                      | Type & No.                             | Records                  | Depth                          | Туре                      | Records           | Casing Water              | Depth<br>(Diameter)                     | ROD            | 6        | Flush details          |                      | Depth<br>(Thickness | Level                | Legend         |                                 |   | Main  |
| 0 -              | 31 Mar 22<br>0.00 |             | 0.10 - 0.40<br>0.20        | B 3<br>D 1                             | -                        |                                |                           |                   |                           | ( · · · · · · · · · · · · · · · · · · · |                |          |                        |                      | (0.4                |                      |                | (MADE GRO<br>Grass over da      | UND)<br>ark brown slightly g                | gravelly fine to coarse SAND.   |
| -                | 0.00              | Damp        | 0.30                       | ES 2                                   | -                        | 0.30                           | PID                       | 0.0 ppmv (Test 1) |                           |   |                |          |                        |                      | 0.40                | +55.60               | )              | (MADE GRO                       | UND)  | gravelly fine to coarse SAND.<br>arse of brick, concrete, flint ar                          |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      | (0.8                | 0)                   |                | Brown slightly<br>Gravel is ano | y gravelly silty fine<br>ular to subangular | to coarse SAND with medium<br>fine to coarse of brick, concre<br>(up to 100x100x30mm) of ma |
| 1 -              |                   |             | 0.90 - 1.20<br>1.00        | B 6<br>ES 4                            |                          | 1.00                           | PID                       | 0.0 ppmv (Test 2) |                           |   |                |          |                        |                      |                     |                      |                |                                 | obbles are arigular                         | (up to 100x100x30mm) of ma  |
| -                |                   |             | 1.20<br>1.20 - 2.00        | D 5<br>B 8                             |                          |                                |                           |                   |                           |   |                |          |                        |                      | 1.20                | +54.80               | )              | Firm brown s<br>Sand is fine t  | lightly sandy CLAY<br>o medium.             | with rare crystals (up to 1m)   |
| -                |                   |             | 1.20 - 2.00<br>1.50        | DYS<br>D 7                             | 100% rec, dia 87mm       |                                |                           |                   |                           |   |                |          |                        |                      | (1.0                | 0)                   |                | (WEALD CLA                      | Y FORMATION)                                |   |
| 2 —              |                   |             | 2.00 - 3.00                | B 10                                   |                          |                                |                           |                   |                           |   |                |          |                        |                      | (1.0)               | .,                   |                |                                 |   |   |
|                  |                   |             | 2.00 - 3.00                | DYS                                    | 90% rec, dia 77mm        |                                |                           |                   |                           |   |                |          |                        |                      | 2.20                | +53.80               | )              | Firm brown r                    | nottled light brown                         | slightly sandy CLAY with frequ  |
| -                |                   |             | 2.50                       | D 9                                    | _                        |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                | rare crystals (<br>(WEALD CL/   | (up to 1mm) of sele<br>Y FORMATION)         | slightly sandy CLAY with frequenties. Sand is fine to medium.                               |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                | -                               |   |   |
| 3 —              |                   |             | 3.00 - 4.00<br>3.00 - 4.00 | B 12<br>DYS                            | 100% rec, dia 67mm       |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             | 3.50                       | D 11                                   |                          |                                |                           |                   |                           |   |                |          |                        |                      | (2.1                | 0)                   |                | 1                               |   |   |
| -                |                   |             | 3.50                       |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| 4 —              |                   |             | 4.00 - 5.00                | D 13                                   | _                        |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                | -                               |   |   |
| -                |                   |             | 4.00 - 5.00<br>4.00 - 5.00 | B 14<br>DYS                            | 100% rec, dia 57mm       |                                |                           |                   |                           |   |                |          |                        |                      | 4.30                | +51.70               |                | Soft light bro                  | wn CLAV with rare                           | crystals (up to 1mm) of seleni  |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      | (0.7                | 0)                   |                | (WEALD CL4                      | Y FORMATION)                                |   |
| -                | 31 Mar 22<br>5.00 | 1700<br>Dry |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| 5 —              | 0.00              |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      | 5.00                | +51.00               | )              |                                 | END C                                       | OF EXPLORATORY HOLE   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| 6 —              |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| 7 —              |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| 8 —              |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| 9 —              |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| _                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| -                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| 10 —             |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| Genera           | l Remarks         |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                | Boring / Chisell<br>Depths Du   | ing<br>uration (mins)                       | Tool  |
| 1                |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
|                  |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |
| Notes<br>For exp | lanation of       | symbole     | and abbreviati             | ons see Key to P                       | Exploratory Hole Records | s. All                         | oject                     | Gatwick North     | ern Runway Projec         | t (NRP)                                 |                |          |                        |                      |                     |                      | Status         |                                 |   | Scale 1:50  |
| depths           | and reduce        | ed levels i | n metres. Stra             | tum thickness gi                       | ven in brackets in depth | column. Pro                    | oject No.<br>rried out fe | D2001-22          | iction T/A Taylor Wo      | odrow                                   |                |          |                        |                      |                     |                      |                | FINA                            | AL.   | Printed 22 Jul 2022 1   |
|                  |                   |             |                            |  |                          | - Ca                           |                           | . virtor constitu | and the layor we          |   |                |          |                        |                      |                     |                      |                |                                 |   | © Copyright SOCOTE  |
|                  |                   |             |                            |  |                          |                                |                           |                   |                           |   |                |          |                        |                      |                     |                      |                |                                 |   |   |





| Checked                     | <b>Dep</b><br>0.00 - | oth<br>0.70 31 Ma           | Dates<br>ar 22 - 31 Mar 22 |                        | Meth<br>Hand dug ins |                    |                            | Equipment<br>Hand tools     | Rig Cr<br>DR        |                   | ogger<br>VJ | Logged<br>31 Mar 22          | ole<br>Dia. (mm)      |             | sing<br>Dia. (mm) | Depth                              | Remarks                                    | Depth Related R   | emarks                 |           | Ground Leve                  | el             | <b>SOCOTEC</b><br>56.44 mOD |
|-----------------------------|----------------------|-----------------------------|----------------------------|------------------------|----------------------|--------------------|----------------------------|-----------------------------|---------------------|-------------------|-------------|------------------------------|-----------------------|-------------|-------------------|------------------------------------|--|---|------------------------|-----------|------------------------------|----------------|-----------------------------|
| СР                          |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       | -           |                   |                                    |  |   |                        |           | Coordinates<br>National Grid |                | E 527493.82<br>N 142518.83  |
| Approved                    |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              | -              | System                      |
| CP                          |                      |                             |                            |                        | 1                    |                    |                            | 0                           |                     | TCR %             |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| Date<br>Casing              | Time<br>Water        | Depth                       | Samples<br>Type & No.      | Records                | Depth                | Field T<br>Type    | Records                    | Samp / Test<br>Casing Water | Depth<br>(Diameter) | SCR %<br>RQD<br>% |             | Water added<br>Flush details | Depth<br>(Thickness   |             | Legend            |                                    |  | Strata D<br>Main  | escription             | Detail    | Chisel                       | Water<br>Entry | Backfill                    |
| 0 - 31 Mar 2<br>- 0.00      | 2 0800<br>Dry        | 0.10 - 0.40<br>0.20<br>0.30 | B 3<br>D 1<br>ES 2         |                        | 0.30                 | PID                | 0.0 ppmv (Test 1)          |                             |                     |                   |             |                              | (0.10<br>0.10<br>(0.3 | 0)          |                   | (MADE GRO<br>MACADAM.<br>(MADE GRO |  |   |                        |           |                              |                | 0.30                        |
| -<br>                       | 2 1700<br>Dry        | 0.00                        |                            |                        |                      |                    |                            |                             |                     |                   |             |                              | 0.40<br>(0.3)<br>0.70 | +50.0<br>0) | 4                 | Dark brown s<br>coarse. Grav       | slightly gravelly S<br>vel is angular to s | AND with low cobble conte<br>ubangular fine to coarse of<br>f macadam (up to 260x170  | brick, concrete, flint | t /       |                              |                | 0.70                        |
| 1                           |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              | 0.70                  | +55.7       | 4                 | (MADE GRO                          | UND)                                       |   |                        |           |                              |                | 0.70                        |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   | subangular f                       | Ine to coarse of b<br>ENI                  | AND. Sand is fine to coarse<br>prick, concrete, flint and ma<br>D OF EXPLORATORY HOLE | cadam.                 |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| 2 -                         |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| 3 —                         |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| -                           |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| 5 —                         |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| 6 -                         |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| 7                           |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| 8                           |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| 9 —                         |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| 10 —                        |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |
| General Remark              | s                    |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   | Boring / Chisel                    |  |   | Groundwater            |           |                              |                | 0                           |
| Termination Rea             | ason: Termin         | nated at 0.70m              | due to concrete o          | bstruction.            |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   | Depths D                           | uration (mins)                             | ΤοοΙ  | No. Depth              | n Remarks |                              |                | Sealed                      |
|                             |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  | -   |                        | r         |                              |                |                             |
| Notes<br>For explanation of | of symbols a         | and abbreviatio             | ons see Key to Exp         | ploratory Hole Records | S. All               | oject<br>oject No. | Gatwick Northe<br>D2001-22 | ern Runway Project          | (NRP)               |                   |             |                              |                       |             | Status            | FINA                               | ۵1   | Scale 1:50<br>Printed 22 Jul 2  | 122 14-10-06           | Borehole  | ۱۸/                          | S6002          |                             |
| depths and reduc            | jea ievels in        | i metres. Strati            | un inickness giver         | n in brackets in depth |                      | rried out fo       |                            | ction T/A Taylor Woo        | drow                |                   |             |                              |                       |             |                   | E IIN/                             |  | © Copyright SOC   |                        | AGS       |                              | Sheet 1 of 1   |                             |
| •                           |                      |                             |                            |                        |                      |                    |                            |                             |                     |                   |             |                              |                       |             |                   |                                    |  |   |                        |           |                              |                |                             |



| Checked                              | Dep                     | oth                                  | Dates<br>22 - 31 Mar 22              |  | Metho<br>Hand dug insp |                                    |          | Equipment<br>Hand tools                   |                     |                   | ogger<br>VJ | Logged<br>31 Mar 22 |       | ole<br>Dia. (mm) |       | sing<br>Dia. (mm) | Depth                              | Remarks                               | Depth Related  | Remarks                           |                            | Ground Leve   | el            | 56.46 mOD   |
|--------------------------------------|-------------------------|--------------------------------------|--------------------------------------|--|------------------------|------------------------------------|----------|---|---------------------|-------------------|-------------|---------------------|-------|------------------|-------|-------------------|------------------------------------|---------------------------------------|--|-----------------------------------|----------------------------|---------------|---------------|-------------|
| СР                                   | 0.00 -                  | 0.70 51 Mai                          | 22 - 31 Mai 22                       |  | Hand dug ins           | pection pit.                       |          | Hand tools                                | DR                  |                   | VJ          | ST Wat 22           | Depth | Dia. (mm)        | Depth | Dia. (mm)         | 0.00 - 0.70                        | No samples ta                         | iken.  |                                   |                            | Coordinates   |               | E 527495.17 |
| Approved                             |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            | National Grie | d             | N 142518.64 |
| CP                                   |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               | System      |
| Date                                 | Time                    |                                      | Samples                              | 6  |                        | Field Te                           | ests     | Samp / Test                               |                     | TCR %<br>SCR %    | ,           | Water added         |       | Depth            | Level | Legend            |                                    |                                       | Strata   | Description                       |                            |               | Water         | Backfill    |
| 0                                    | Water                   | Depth                                | Type & No.                           | Records  | Depth                  | Туре                               | Records  | Casing Water                              | Depth<br>(Diameter) | SCR %<br>RQD<br>% |             | Flush details       |       | (Thicknes        | s)    |                   |                                    |                                       | Main   |                                   | Detail                     | Chis          | Entry         |             |
| - 31 Mar 22<br>0.00                  | 0800<br>Dry             |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       | 0.10 (0.3        | 0)    |                   | (MADE GRO<br>MACADAM.<br>(MADE GRO | UND)                                  |  |                                   | /                          |               |               | 0.30        |
| -<br>                                | 1700                    |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       | 0.40             | +50.0 |                   | Dark brown s                       | slightly gravelly fine to coarse of b | ne to coarse SAND. Grav<br>prick, concrete, flint and n                          | vel is angular to<br>nacadam.     |                            |               |               |             |
|                                      | Dry                     |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       | 0.70             | +55.7 | ′6 <b>******</b>  | (MADE GRO<br>Brown slight          | UND)<br>y gravelly silty fir          | ne to coarse SAND. Grav<br>prick, concrete, flint and n<br>D OF EXPLORATORY HOLE | el is angular to                  |                            |               |               | 0.70        |
| 1                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    | ne to coarse of r<br>ENI              | Drick, concrete, filmt and h<br>D OF EXPLORATORY HOLE                            | iacadam.                          | /                          |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 2 —                                  |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 3 —                                  |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 4 —                                  |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 5 —                                  |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 6 -                                  |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 7 —                                  |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 8 —                                  |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 9 -                                  |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| -                                    |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| 10 —                                 |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       |  |                                   |                            |               |               |             |
| General Remarks<br>Termination Reaso |                         | nated at 0.70m o                     | due to concrete o                    | obstruction.   |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   | Boring / Chisel<br>Depths D        | ling<br>uration (mins)                | Тооі   | Groundwa<br>No. Dej               | ter Entries<br>pth Remarks |               |               | Sealed      |
| Notes                                |                         |                                      |                                      |  |                        | ient                               |          | am Durwe D. i. i                          |                     |                   |             |                     |       |                  |       | Status            | ;                                  |                                       | 01- 4.50   |                                   | Borehole                   |               |               |             |
| For explanation of s                 | ymbols a<br>I levels in | and abbreviatior<br>n metres. Stratu | ns see Key to Ex<br>m thickness give | xploratory Hole Records<br>en in brackets in depth o | column. Pro            | iject<br>iject No.<br>rried out fo | D2001-22 | ern Runway Project<br>ction T/A Taylor Wo |                     |                   |             |                     |       |                  |       |                   | FIN                                | AL                                    | Scale 1:50<br>Printed 22 Jul   | 2022 14:19:06<br>COTEC UK Limited |                            |               | <b>56002</b>  | 4           |
|                                      |                         |                                      |                                      |  |                        |                                    |          |   |                     |                   |             |                     |       |                  |       |                   |                                    |                                       | © Copyright SO   |                                   |                            |               | 5.1001 1 01 1 |             |





# **Monitoring Installations Summary**

| Instrument<br>Reference | Instrument Type<br>(See Notes) | Installation<br>Date,<br>dd/mm/yyyy | Pipe Diameter,<br>mm | Instrument Base,<br>mbgl | Response Zone<br>Range,<br>mbgl | Pipe Top<br>Details | Headworks    | Remarks |
|-------------------------|--------------------------------|-------------------------------------|----------------------|--------------------------|---------------------------------|---------------------|--------------|---------|
| BH102 (1)               | SP                             | 04/05/2022                          | 50                   | 5.00                     | 1.20 to 5.00                    | Open                | Raised cover |         |
| BH103 (1)               | SP                             | 15/03/2022                          | 50                   | 7.50                     | 1.00 to 8.00                    | Open                | Flush cover  |         |
| BH104 (1)               | SP                             | 19/03/2022                          | 50                   | 15.00                    | 8.50 to 15.50                   | Open                | Flush cover  |         |
| BH106 (1)               | SP                             | 08/03/2022                          | 50                   | 7.00                     | 1.00 to 7.50                    | Open                | Flush cover  |         |
| BH108 (1)               | SP                             | 18/03/2022                          | 50                   | 7.50                     | 1.00 to 8.00                    | Open                | Flush cover  |         |
| BH6001 (1)              | SP                             | 01/04/2022                          | 50                   | 8.00                     | 1.50 to 8.50                    | Open                | Flush cover  |         |
| BH702 (1)               | SP                             | 26/03/2022                          | 50                   | 7.50                     | 1.00 to 8.00                    | Open                | Flush cover  |         |
| BH703 (1)               | SP                             | 24/03/2022                          | 50                   | 4.50                     | 1.00 to 5.00                    | Open                | Flush Cover  |         |
| BH705 (1)               | SP                             | 29/04/2022                          | 50                   | 15.00                    | 8.50 to 15.50                   | Open                | Flush cover  |         |
| BH706 (1)               | SP                             | 17/03/2022                          | 50                   | 2.00                     | 0.80 to 2.50                    | Open                | Flush cover  |         |
| BH708 (1)               | SP                             | 03/03/2022                          | 50                   | 5.50                     | 1.00 to 6.00                    | Open                | Flush cover  |         |
| WS101 (1)               | SP                             | 27/04/2022                          | 50                   | 4.90                     | 1.70 to 5.45                    | Open                | Raised cover |         |
| WS4003 (1)              | SP                             | 31/03/2022                          | 50                   | 4.90                     | 1.50 to 4.90                    | Open                | Flush cover  |         |



D1

# **Groundwater Monitoring**



| Instrument<br>Reference                     | Instrument<br>Type | Instrument Base,<br>mbgl | Date Time<br>dd/mm/yyyy hh:mm:ss           | Result        | Comments         |
|---|--------------------|--------------------------|--|---------------|------------------|
| BH102                                       | SP                 | 5.00                     | 16/05/2022 16:42:00                        | 2.40          | 1                |
| BH102                                       | SP                 | 5.00                     | 23/05/2022 11:50:00                        | 2.34          | Pre Development  |
| BH102                                       | SP                 | 5.00                     | 23/05/2022 12:15:00                        | 3.03          | Post Development |
| BH102                                       | SP                 | 5.00                     | 01/06/2022 10:30:00                        | 2.38          |                  |
| BH102                                       | SP                 | 5.00                     | 08/06/2022 12:00:00                        | 2.38          |                  |
| BH102                                       | SP                 | 5.00                     | 15/06/2022 14:01:00                        | 2.49          |                  |
| BH102                                       | SP                 | 5.00                     | 22/06/2022 13:24:00                        | 2.55          |                  |
| BH102                                       | SP                 | 5.00                     | 28/06/2022 10:14:00                        | 2.61          |                  |
| BH103                                       | SP                 | 7.50                     | 19/04/2022 15:35:00                        | 5.62          | Pre development  |
| BH103                                       | SP                 | 7.50                     | 19/04/2022 16:25:00                        | Dry           | Post development |
| BH103                                       | SP                 | 7.50                     | 16/05/2022 13:45:00                        | 6.82          |                  |
| BH103                                       | SP                 | 7.50                     | 23/05/2022 10:20:00                        | 6.74          |                  |
| BH103                                       | SP                 | 7.50                     | 01/06/2022 09:50:00                        | 6.83          |                  |
| BH103                                       | SP                 | 7.50                     | 08/06/2022 11:35:00                        | 6.80          |                  |
| BH103                                       | SP                 | 7.50                     | 15/06/2022 13:05:00                        | 6.86          |                  |
| BH103                                       | SP                 | 7.50                     | 22/06/2022 12:10:00                        | 6.89          |                  |
| BH103                                       | SP                 | 7.50                     | 28/06/2022 09:35:00                        | 6.94          |                  |
| BH104                                       | SP                 | 15.00                    | 19/04/2022 14:30:00                        | 6.00          | Pre development  |
| BH104                                       | SP                 | 15.00                    | 19/04/2022 15:00:00                        | 7.68          | Post development |
| BH104                                       | SP                 | 15.00                    | 16/05/2022 13:05:00                        | 7.21          |                  |
| BH104                                       | SP                 | 15.00                    | 23/05/2022 10:00:00                        | 7.00          |                  |
| BH104                                       | SP                 | 15.00                    | 01/06/2022 09:30:00                        | 6.98          |                  |
| BH104                                       | SP                 | 15.00                    | 08/06/2022 11:20:00                        | 7.00          |                  |
| BH104                                       | SP                 | 15.00                    | 15/06/2022 12:49:00                        | 7.04          |                  |
| BH104                                       | SP                 | 15.00                    | 22/06/2022 13:40:00                        | 7.08          |                  |
| BH104                                       | SP                 | 15.00                    | 28/06/2022 09:24:00                        | 7.12          |                  |
| BH106                                       | SP                 | 7.00                     | 11/03/2022 09:55:00                        | 4.27          | Pre development  |
| BH106                                       | SP                 | 7.00                     | 19/04/2022 15:20:00                        | 4.57          | Post development |
| BH106                                       | SP                 | 7.00                     | 16/05/2022 14:05:00                        | 4.70          |                  |
| BH106                                       | SP                 | 7.00                     | 23/05/2022 10:30:00                        | 4.58          | _                |
| BH106                                       | SP                 | 7.00                     | 01/06/2022 10:00:00                        | 4.64          |                  |
| BH106                                       | SP<br>SP           | 7.00                     | 08/06/2022 11:43:00                        | 4.64          |                  |
| BH106                                       | SP                 | 7.00                     | 15/06/2022 13:24:00                        | 4.74          |                  |
| BH106<br>BH106                              | SP                 | 7.00                     | 22/06/2022 11:58:00<br>28/06/2022 09:45:00 | 4.80          |                  |
| BH100<br>BH108                              | SP                 | 7.50                     | 19/04/2022 16:50:00                        | 1.15          | Pre development  |
| BH108                                       | SP                 | 7.50                     | 19/04/2022 10:30:00                        | 3.38          | Post development |
| BH108                                       | SP<br>SP           | 7.50                     | 16/05/2022 14:55:00                        | 1.28          |                  |
| BH108                                       | SP                 | 7.50                     | 23/05/2022 14:55:00                        | 1.20          | +                |
| BH108                                       | SP                 | 7.50                     | 01/06/2022 13:10:00                        | 1.27          |                  |
| BH108                                       | SP                 | 7.50                     | 08/06/2022 14:50:00                        | 1.27          |                  |
| BH108                                       | SP                 | 7.50                     | 15/06/2022 11:42:00                        | 1.37          |                  |
| BH108                                       | SP                 | 7.50                     | 22/06/2022 11:00:00                        | 1.45          |                  |
| BH108                                       | SP                 | 7.50                     | 28/06/2022 12:11:00                        | 1.52          | 1                |
| BH6001                                      | SP                 | 8.00                     | 20/04/2022 13:55:00                        | 3.90          | Pre development  |
| BH6001                                      | SP                 | 8.00                     | 20/04/2022 14:10:00                        | 3.96          | Post development |
| BH6001                                      | SP                 | 8.00                     | 16/05/2022 15:30:00                        | 3.83          | · · ·            |
| BH6001                                      | SP                 | 8.00                     | 23/05/2022 15:35:00                        | 3.79          | 1                |
| BH6001                                      | SP                 | 8.00                     | 01/06/2022 13:35:00                        | 3.76          |                  |
| BH6001                                      | SP                 | 8.00                     | 08/06/2022 15:15:00                        | 3.69          |                  |
| Type: SP - Standpip                         |                    |                          | Gatwick Northern Runway                    | Project (NRP) |                  |
| eter, HPIE - Hydrau<br>atic Piezometer, EPI |                    | -<br>Project No.         | D2001-22                                   |               | D2               |

# **Groundwater Monitoring**



| Instrument<br>Reference                          | Instrument<br>Type | Instrument Base,<br>mbgl | Date Time<br>dd/mm/yyyy hh:mm:ss | Result          | Comments         |
|--|--------------------|--------------------------|----------------------------------|-----------------|------------------|
| BH6001   | SP                 | 8.00                     | 15/06/2022 11:09:00              | 3.69            |                  |
| BH6001   | SP                 | 8.00                     | 22/06/2022 11:34:00              | 3.66            |                  |
| BH6001   | SP                 | 8.00                     | 28/06/2022 11:36:00              | 3.67            |                  |
| BH702  | SP                 | 7.50                     | 19/04/2022 10:00:00              | 3.32            | Pre development  |
| BH702  | SP                 | 7.50                     | 19/04/2022 13:15:00              | 3.84            | Post development |
| BH702  | SP                 | 7.50                     | 16/05/2022 10:10:00              | 3.47            |                  |
| BH702  | SP                 | 7.50                     | 23/05/2022 13:25:00              | 3.40            |                  |
| BH702  | SP                 | 7.50                     | 01/06/2022 12:40:00              | 3.42            |                  |
| BH702  | SP                 | 7.50                     | 08/06/2022 14:20:00              | 3.40            |                  |
| BH702  | SP                 | 7.50                     | 15/06/2022 09:34:00              | 3.40            |                  |
| BH702  | SP                 | 7.50                     | 22/06/2022 09:33:00              | 3.37            |                  |
| BH702  | SP                 | 7.50                     | 28/06/2022 11:21:00              | 3.37            |                  |
| BH703  | SP                 | 4.50                     | 19/04/2022 10:10:00              | 1.65            | Pre development  |
| BH703  | SP                 | 4.50                     | 19/04/2022 11:40:00              | 3.50            | Post development |
| BH703  | SP                 | 4.50                     | 16/05/2022 11:20:00              | 1.68            |                  |
| BH703  | SP                 | 4.50                     | 23/05/2022 13:55:00              | 1.53            | 1                |
| BH703  | SP                 | 4.50                     | 01/06/2022 11:46:00              | 1.55            |                  |
| BH703  | SP                 | 4.50                     | 08/06/2022 14:10:00              | 1.52            |                  |
| BH703  | SP                 | 4.50                     | 15/06/2022 10:05:00              | 1.65            |                  |
| BH703  | SP                 | 4.50                     | 22/06/2022 10:14:00              | 1.65            |                  |
| BH703  | SP                 | 4.50                     | 28/06/2022 11:11:00              | 1.74            |                  |
| BH705  | SP                 | 15.00                    | 19/04/2022 10:30:00              | 4.88            | Pre development  |
| BH705  | SP                 | 15.00                    | 19/04/2022 11:00:00              | 4.93            | Post development |
| BH705  | SP                 | 15.00                    | 16/05/2022 10:40:00              | 4.84            |                  |
| BH705  | SP                 | 15.00                    | 23/05/2022 13:40:00              | 4.85            |                  |
| BH705  | SP                 | 15.00                    | 01/06/2022 11:30:00              | 4.78            |                  |
| BH705  | SP                 | 15.00                    | 08/06/2022 13:45:00              | 4.81            |                  |
| BH705  | SP                 | 15.00                    | 15/06/2022 09:50:00              | 4.85            |                  |
| BH705  | SP                 | 15.00                    | 22/06/2022 09:46:00              | 4.80            |                  |
| BH705  | SP                 | 15.00                    | 28/06/2022 10:52:00              | 4.81            |                  |
| BH706  | SP                 | 2.00                     | 19/04/2022 12:10:00              | 1.10            | Pre development  |
| BH706  | SP                 | 2.00                     | 19/04/2022 12:25:00              | Dry             | Post development |
| BH706  | SP                 | 2.00                     | 16/05/2022 11:40:00              | 1.20            |                  |
| BH706  | SP                 | 2.00                     | 23/05/2022 14:05:00              | 1.05            |                  |
| BH706  | SP                 | 2.00                     | 01/06/2022 11:20:00              | 1.06            |                  |
| BH706  | SP                 | 2.00                     | 08/06/2022 14:00:00              | 1.00            |                  |
| BH706  | SP                 | 2.00                     | 15/06/2022 10:19:00              | 1.00            |                  |
| BH706  | SP                 | 2.00                     | 22/06/2022 10:13:00              | 1.22            |                  |
| BH706  | SP                 | 2.00                     | 28/06/2022 11:02:00              | 1.20            | +                |
| BH708  | SP                 | 5.50                     | 20/04/2022 11:10:00              | 3.90            | Pre development  |
| BH708  | SP                 | 5.50                     | 20/04/2022 11:10:00              | Dry             | Post development |
| BH708  | SP                 | 5.50                     | 16/05/2022 09:25:00              | 3.95            |                  |
| BH708  | SP                 | 5.50                     | 23/05/2022 14:30:00              | 3.87            |                  |
| BH708  | SP                 | 5.50                     | 01/06/2022 10:52:00              | 4.93            | +                |
| BH708  | SP                 | 5.50                     | 08/06/2022 13:20:00              | 3.90            |                  |
| BH708  | SP                 | 5.50                     | 15/06/2022 10:39:00              | 4.01            | +                |
| BH708  | SP                 | 5.50                     | 22/06/2022 10:39:00              | 4.01            |                  |
| BH708  | SP                 | 5.50                     | 28/06/2022 10:35:00              | 4.04            |                  |
| WS101  | SP                 | 4.90                     | 16/05/2022 17:05:00              | 2.81            | Pre Development  |
| WS101<br>WS101                                   | SP                 | 4.90                     | 23/05/2022 11:20:00              | 2.01            | Pre Development  |
| w3101  | 0r                 | 4.50                     | 2010012022 11.20.00              | 2.11            |                  |
| s: Type: SP - Standpip<br>ometer, HPIE - Hydraul |                    |                          | Gatwick Northern Runwa           | y Project (NRP) |                  |
| ometer, HPIE - Hydraul<br>Jmatic Piezometer, EPI |                    | -<br>Project No.         | D2001-22                         |                 | D2               |

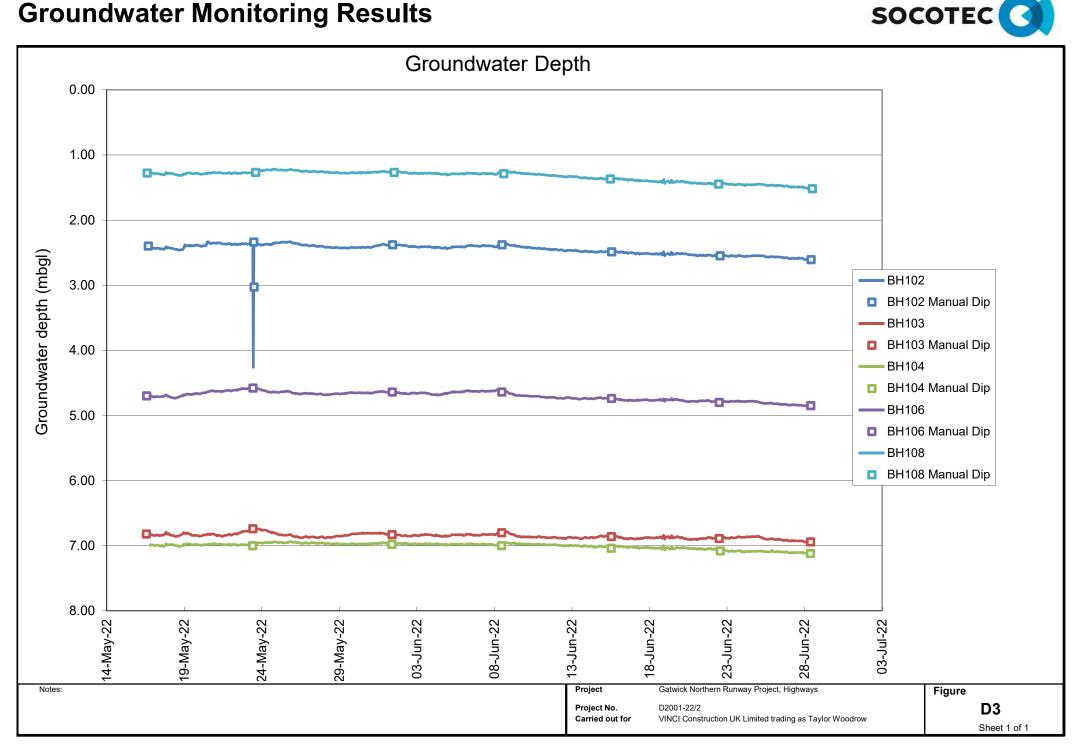
# **Groundwater Monitoring**



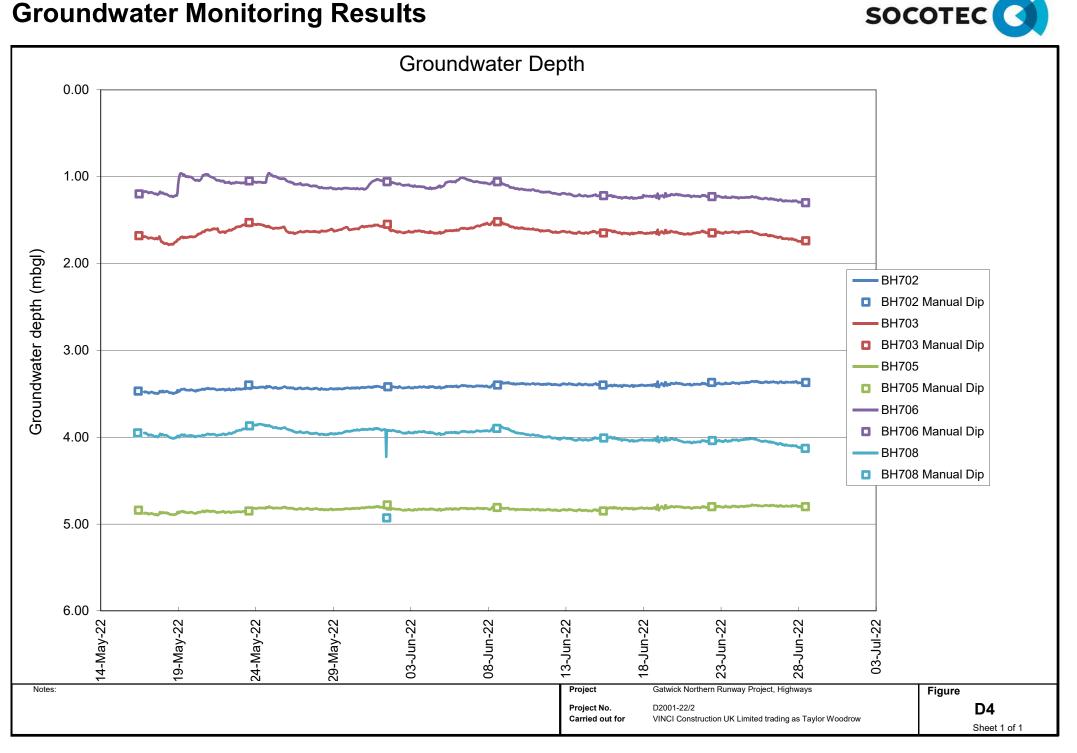
| Instrument<br>Reference | Instrument<br>Type | Instrument Base,<br>mbgl | Date Time<br>dd/mm/yyyy hh:mm:ss | Result | Comments         |
|-------------------------|--------------------|--------------------------|----------------------------------|--------|------------------|
| WS101                   | SP                 | 4.90                     | 23/05/2022 11:45:00              | 4.96   | Post Development |
| WS101                   | SP                 | 4.90                     | 01/06/2022 10:17:00              | 2.78   |                  |
| WS101                   | SP                 | 4.90                     | 08/06/2022 12:15:00              | 2.78   |                  |
| WS101                   | SP                 | 4.90                     | 15/06/2022 13:45:00              | 2.82   |                  |
| WS101                   | SP                 | 4.90                     | 22/06/2022 13:08:00              | 2.85   |                  |
| WS101                   | SP                 | 4.90                     | 28/06/2022 10:00:00              | 2.85   |                  |
| WS4003                  | SP                 | 4.90                     | 20/04/2022 13:05:00              | 2.54   | Pre development  |
| WS4003                  | SP                 | 4.90                     | 20/04/2022 13:30:00              | Dry    | Post development |
| WS4003                  | SP                 | 4.90                     | 16/05/2022 16:00:00              | 2.73   |                  |
| WS4003                  | SP                 | 4.90                     | 23/05/2022 15:20:00              | 2.37   |                  |
| WS4003                  | SP                 | 4.90                     | 01/06/2022 13:45:00              | 2.38   |                  |
| WS4003                  | SP                 | 4.90                     | 08/06/2022 15:30:00              | 2.35   |                  |
| WS4003                  | SP                 | 4.90                     | 15/06/2022 11:16:00              | 3.55   |                  |
| WS4003                  | SP                 | 4.90                     | 22/06/2022 11:23:00              | 2.63   |                  |
| WS4003                  | SP                 | 4.90                     | 28/06/2022 11:47:00              | 2.71   |                  |

Project

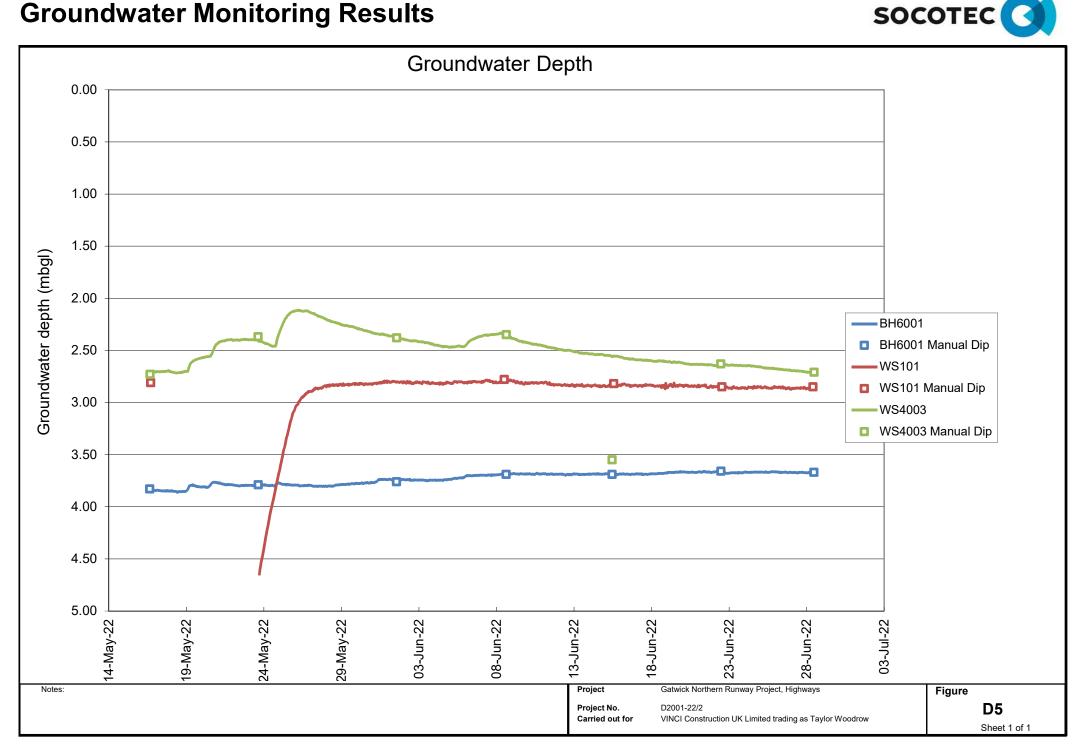
### **Groundwater Monitoring Results**



### **Groundwater Monitoring Results**



### **Groundwater Monitoring Results**





### Annex 5

## Screening Criteria



### Table A4.1: Groundwater Screening Criteria

| Contaminant   | AA-EQS (micrograms per litre) | UK Drinking<br>Water Standards<br>(micrograms per<br>litre) | WHO Health<br>(micrograms<br>per litre) | WHO ATO<br>(micrograms<br>per litre) |
|---|-------------------------------|---|---|--------------------------------------|
| Aluminium   | -                             | 200   | -                                       | -                                    |
| Ammonia (NH3 as N)  | 15                            | -   | -                                       | -                                    |
| Ammonium (as NH4+)  | -                             | 500   | -                                       | -                                    |
| Anthracene  | 0.1                           | -   | -                                       | -                                    |
| Antimony  | -                             | 5   | -                                       | -                                    |
| Arsenic   | 50                            | -   | -                                       | -                                    |
| Barium  | -                             | 1000  | -                                       | -                                    |
| Benzene   | 10                            | -   | -                                       | -                                    |
| Benzo(a)pyrene  | 0.00017                       | -   | -                                       | -                                    |
| Benzo(b)flouranthene  | 0.00017                       | -   | -                                       | -                                    |
| Benzo(k)fluoranthene  | 0.00017                       | -   | -                                       | -                                    |
| Benzo(g,h,i)perylene)   | 0.00017                       | -   | -                                       | -                                    |
| Benzyl butyl phthalate  | 7.5                           | -   | -                                       | -                                    |
| Biphenyl  | 25                            | -   | -                                       | -                                    |
| Boron   | 2,000                         | -   | -                                       | -                                    |
| Cadmium and its compounds - dissolved (< 40 mg/l calcium carbonate)       | <=0.08                        | -   | -                                       | -                                    |
| Cadmium and its compounds - dissolved (40 - <50 mg/l calcium carbonate)   | 0.08                          | -   | -                                       | -                                    |
| Cadmium and its compounds - dissolved (50 - <100 mg/l calcium carbonate)  | 0.09                          | -   | -                                       | -                                    |
| Cadmium and its compounds - dissolved (100 - <200 mg/l calcium carbonate) | 0.15                          | -   | -                                       | -                                    |
| Cadmium and its compounds - dissolved (>200 mg/l calcium carbonate)       | 0.25                          | -   | -                                       | -                                    |
| Calcium   | -                             | 250,000   | -                                       | -                                    |
| Carbon tetrachloride  | 12                            | -   | -                                       | -                                    |
| Chloride  | 250,000                       | -   | -                                       | -                                    |
| Chlorine (total residual oxidant)   | 2                             | -   | -                                       | -                                    |
| Chloroform  | 12                            | -   | -                                       | -                                    |
| 4-chloro-3-methylphenol   | 40                            | -   | -                                       | -                                    |
| Chloronitro toluenes  | 10                            | -   | -                                       | -                                    |
| 2-chlorophenol  | 50                            | -   | -                                       | -                                    |
| 3-chlorophenol-4-chlorophenol total (or individual monochlorophenols)     | 50                            | -   | -                                       | -                                    |
| Chromium III (dissolved)  | 4.7                           | -   | -                                       | -                                    |
| Chromium VI (dissolved)   | 3.4                           | -   | -                                       | -                                    |
| Copper (dissolved)  | 1 (bioavailable)              | -   | -                                       | -                                    |
| Cyanide   | 1                             | -   | -                                       | -                                    |
| Dibutyl phthalate   | 8                             | -   | -                                       | -                                    |
| 3,4-dichloroaniline   | 0.2                           | -   | -                                       | -                                    |
| Dichlorobenzene - total dichlorobenzene isomers                           | 20                            | -   | -                                       | -                                    |

# G LONDON GATWICK

| Contaminant  | AA-EQS (micrograms per litre) | UK Drinking<br>Water Standards<br>(micrograms per<br>litre) | WHO Health<br>(micrograms<br>per litre) | WHO ATO<br>(micrograms<br>per litre) |
|--|-------------------------------|---|---|--------------------------------------|
| Dichloro-methane   | 20                            | -   | -                                       | -                                    |
| 1,2-dichloroethane   | 10                            | -   | -                                       | -                                    |
| 1,1-dichloroethene   | -                             | -   | 30                                      | -                                    |
| 1,2-dichloroethene   | -                             | -   | 50                                      | -                                    |
| 1,2-dibromo-3-chloropropane  | -                             | 0.1   | -                                       | -                                    |
| 1,2-dichlorobenzene  | -                             | -   | -                                       | 1 to 10                              |
| 1,2-dichloropropane  | -                             | 0.1   | -                                       | -                                    |
| 1,3-dichloropropene  | -                             | 0.1   | -                                       | -                                    |
| 1,4-dichlorobenzene  | -                             | -   | -                                       | 0.3 to 30                            |
| 2,4-dichlorophenol   | 4.2                           | -   | -                                       | -                                    |
| Diethyl phthalate  | 200                           | -   | -                                       | -                                    |
| Dimethyl phthalate   | 800                           | -   | -                                       | -                                    |
| Dioctyl phthalate  | 20                            | -   | -                                       | -                                    |
| Di(2-ethylhexyl)-phthalate (DEHP)  | 1.3                           | -   | -                                       | -                                    |
| Ethylbenzene   | -                             | -   | -                                       | 2 to 200                             |
| Fluoranthene   | 0.0063                        | -   | -                                       | -                                    |
| Fluoride - dissolved (<50 mg of Calcium carbonate per litre of water (mg/l)) | 1,000                         | -   | -                                       | -                                    |
| Fluoride - dissolved (>50 mg/l of calcium carbonate)                         | 5,000                         | -   | -                                       | -                                    |
| Hexachloro-benzene   | 0.03                          | -   | -                                       | -                                    |
| Hexachloro-butadiene   | 0.10                          | -   | -                                       | -                                    |
| Hexachloro-cyclohexane   | 0.02                          | -   | -                                       | -                                    |
| Hydrocarbons (dissolved/emulsions)   | -                             | 10  | -                                       | -                                    |
| Hydrogen Sulphide  | 0.25                          | -   | -                                       | -                                    |
| Indeno(1,2,3-cd)pyrene   | 0.00017                       | -   | -                                       | -                                    |
| Iron - dissolved   | 1,000                         | -   | -                                       | -                                    |
| Lead and its compounds (dissolved)   | 1.2 (bioavailable)            | -   | -                                       | -                                    |
| Magnesium  | -                             | 50,000  | -                                       | -                                    |
| Manganese - dissolved  | 123 (bioavailable)            | -   | -                                       | -                                    |
| Mercury and its compounds (dissolved)  | 1                             | -   | -                                       | -                                    |
| Methylbenzene  | 50                            | -   | -                                       | -                                    |
| Naphthalene  | 2                             | -   | -                                       | -                                    |
| Nickel and its compounds (dissolved)   | 4 (bioavailable)              | -   | -                                       | -                                    |
| Nitrate (as NO3)   | -                             | 50,000  | -                                       | -                                    |
| Nitrite (as NO2)   | -                             | 100   | -                                       | -                                    |
| pH (6 - 9)   | -                             | -   | -                                       | -                                    |
| Pentachloro-benzene  | 0.007                         | -   | -                                       | -                                    |
| Pentachloro-phenol   | 0.4                           | -   | -                                       | -                                    |

# G LONDON GATWICK

| Contaminant  | AA-EQS (micrograms per litre) | UK Drinking<br>Water Standards<br>(micrograms per<br>litre) | WHO Health<br>(micrograms<br>per litre) | WHO ATO<br>(micrograms<br>per litre) |
|--|-------------------------------|---|---|--------------------------------------|
| Phenol   | 7.7                           | -   | -                                       | -                                    |
| Phosphorous  | -                             | 2200  | -                                       | -                                    |
| Potassium  | -                             | 12,000  | -                                       | -                                    |
| Selenium   | -                             | 10  | -                                       | -                                    |
| Sodium   | 170,000                       | -   | -                                       | -                                    |
| Sulphate   | 400,000                       | -   | -                                       | -                                    |
| Sulphide   | 0.25                          | -   | -                                       | -                                    |
| Styrene  | 50                            | -   | -                                       | -                                    |
| Tetrachloroethane                                      | 140                           | -   | -                                       | -                                    |
| Tetrachloroethene (PCE)                                | 10                            | -   | -                                       | -                                    |
| Tetrachloro-ethylene                                   | 10                            | -   | -                                       | -                                    |
| Tetrachloromethane (PCM)                               | 12                            | -   | -                                       | -                                    |
| Toluene  | 74                            | -   | -                                       | -                                    |
| Tributyl phosphate                                     | 50                            | -   | -                                       | -                                    |
| Trichloro-benzenes                                     | 0.4                           | -   | -                                       | -                                    |
| Trichloroethene  | 10                            | -   | -                                       | -                                    |
| Trichloro-ethylene                                     | 10                            | -   | -                                       | -                                    |
| Trichloro-methane (chloroform)                         | 2.5                           | -   | -                                       | -                                    |
| 1,1,1-trichloroethane                                  | 100                           | -   | -                                       | -                                    |
| 1,1,2-trichloroethane                                  | 400                           | -   | -                                       | -                                    |
| 2,4,6-trichlorophenol                                  | -                             | -   | 200                                     | -                                    |
| Vanadium (0-200 mg/l of calcium carbonate)             | 20                            | -   | -                                       | -                                    |
| Vanadium (>200 mg/l calcium carbonate)                 | 60                            | -   | -                                       | -                                    |
| Vinyl Chloride   | -                             | 0.5   | -                                       | -                                    |
| Xylene   | 30                            | -   | -                                       | -                                    |
| Zinc - dissolved plus ambient background concentration | 10.9 (bioavailable)           | -   | -                                       | -                                    |

# G LONDON GATWICK

#### Table A4.2: Soils

| Arsenic                            | 640                            | S4UL <sup>(a)</sup> |
|------------------------------------|--------------------------------|---------------------|
| Beryllium                          | 12                             | S4UL <sup>(a)</sup> |
| Boron                              | 240000                         | S4UL <sup>(a)</sup> |
| Cadmium                            | 190                            | S4UL <sup>(a)</sup> |
| Chromium III                       | 8600                           | S4UL <sup>(a)</sup> |
| Chromium VI                        | 33                             | S4UL <sup>(a)</sup> |
| Copper                             | 68000                          | S4UL <sup>(a)</sup> |
| Lead                               | 2300                           | pC4SL               |
| Elemental Mercury                  | 58 <sup>vap (25.8)</sup>       | S4UL <sup>(a)</sup> |
| Inorganic Mercury                  | 1100                           | S4UL <sup>(a)</sup> |
| Methylmercury                      | 320                            | S4UL <sup>(a)</sup> |
| Nickel                             | 980                            | S4UL <sup>(a)</sup> |
| Selenium                           | 12000                          | S4UL <sup>(a)</sup> |
| Vanadium                           | 9000                           | S4UL <sup>(a)</sup> |
| Zinc                               | 730000                         | S4UL <sup>(a)</sup> |
| Petroleum Hydrocarbons             |                                |                     |
|                                    | 1% SOM                         |                     |
| Aliphatic EC 5-6                   | 3200 (304) <sup>sol</sup>      | S4UL <sup>(a)</sup> |
| Aliphatic EC >6-8                  | 7800 (144) <sup>sol</sup>      | S4UL <sup>(a)</sup> |
| Aliphatic EC >8-10                 | 2000 (78) <sup>sol</sup>       | S4UL <sup>(a)</sup> |
| Aliphatic EC >10-12                | 9700 (48) <sup>sol</sup>       | S4UL <sup>(a)</sup> |
| Aliphatic EC >12-C16               | 59000 (24) <sup>sol</sup>      | S4UL <sup>(a)</sup> |
| Aliphatic EC >16-35                | 1600000                        | S4UL <sup>(a)</sup> |
| Aliphatic EC >35-44                | 1600000                        | S4UL <sup>(a)</sup> |
| Aromatic EC5-7 (benzene)           | 26000<br>(1220) <sup>sol</sup> | S4UL <sup>(a)</sup> |
| Aromatic EC >7-8 (toluene)         | 56000(869) <sup>vap</sup>      | S4UL <sup>(a)</sup> |
| Aromatic EC >8-10                  | 3500 (613) <sup>vap</sup>      | S4UL <sup>(a)</sup> |
| Aromatic EC >10-12                 | 16000<br>(364) <sup>sol</sup>  | S4UL <sup>(a)</sup> |
| Aromatic EC >12-16                 | 36000<br>(169) <sup>sol</sup>  | S4UL <sup>(a)</sup> |
| Aromatic EC >16-21                 | 28000                          | S4UL <sup>(a)</sup> |
| Aromatic EC >21-35                 | 28000                          | S4UL <sup>(a)</sup> |
| Aromatic EC >35-44                 | 28000                          | S4UL <sup>(a)</sup> |
| Alomalic LC ~30-44                 |                                |                     |
| Aliphatic + Aromatic EC >44-<br>70 | 28000                          | S4UL <sup>(a)</sup> |
| Aliphatic + Aromatic EC >44-       | 28000                          | S4UL <sup>(a)</sup> |

| BTEX                          |                                |                     |
|-------------------------------|--------------------------------|---------------------|
| Benzene                       | 27                             | S4UL <sup>(a)</sup> |
| Toluene                       | 56000<br>(869) <sup>vap</sup>  | S4UL <sup>(a)</sup> |
| Ethylbenzene                  | 5700 (518) <sup>vap</sup>      | S4UL <sup>(a)</sup> |
| o-xylene                      | 6600 (478) <sup>sol</sup>      | S4UL <sup>(a)</sup> |
| m-xylene                      | 6200 (625) <sup>vap</sup>      | S4UL <sup>(a)</sup> |
| p-xylene                      | 5900 (576) <sup>sol</sup>      | S4UL <sup>(a)</sup> |
| MTBE                          | -                              |                     |
| PAHs                          |                                |                     |
| Acenaphthene                  | 84000<br>(57.0) <sup>sol</sup> | S4UL <sup>(a)</sup> |
| Acenaphthylene                | 83000<br>(86.1) <sup>sol</sup> | S4UL <sup>(a)</sup> |
| Anthracene                    | 520000                         | S4UL <sup>(a)</sup> |
| Benzo(a)anthracene            | 170                            | S4UL <sup>(a)</sup> |
| Benzo(a)pyrene                | 35                             | S4UL <sup>(a)</sup> |
| Benzo(b)fluoranthene          | 44                             | S4UL <sup>(a)</sup> |
| Benzo(g,h,i)perylene          | 3900                           | S4UL <sup>(a)</sup> |
| Benzo(k)fluoranthene          | 1200                           | S4UL <sup>(a)</sup> |
| Chrysene                      | 350                            | S4UL <sup>(a)</sup> |
| Dibenzo(a,h)anthracene        | 3.5                            | S4UL <sup>(a)</sup> |
| Fluoranthene                  | 23000                          | S4UL <sup>(a)</sup> |
| Fluorene                      | 63000<br>(30.9) <sup>sol</sup> | S4UL <sup>(a)</sup> |
| Indeno(1,2,3-c,d)pyrene       | 500                            | S4UL <sup>(a)</sup> |
| Naphthalene                   | 190 (76.4) <sup>sol</sup>      | S4UL <sup>(a)</sup> |
| Phenanthrene                  | 22000                          | S4UL <sup>(a)</sup> |
| Pyrene                        | 54000                          | S4UL <sup>(a)</sup> |
| PAH                           | -                              |                     |
| Phenols                       |                                |                     |
| Phenol                        | 440 (26000) <sup>dir</sup>     | S4UL <sup>(a)</sup> |
| Chlorophenols                 | 3500                           | S4UL <sup>(a)</sup> |
| Pentachlorophenol             | 400                            | S4UL <sup>(a)</sup> |
| Chloroalkanes & alkenes       |                                |                     |
| Chloroethene (vinyl chloride) | 0.059                          | S4UL <sup>(a)</sup> |
| Dichloroethane                | 0.67                           | S4UL <sup>(a)</sup> |
| Chlorinated Hydrocarbons      |                                |                     |
| Tetrachloroethanes            | 270                            | S4UL <sup>(a)</sup> |

| Tetrachloroethene             | 19                             | S4UL <sup>(a)</sup> |
|-------------------------------|--------------------------------|---------------------|
| Tetrachloromethane (Carbon    |                                | 0 (1 11 (2)         |
| Tetrachloride)                | 2.9                            | S4UL <sup>(a)</sup> |
| Trichloroethane               | 660                            | S4UL <sup>(a)</sup> |
| Trichloroethene               | 1.2                            | S4UL <sup>(a)</sup> |
| Trichloromethane (Chloroform) | 99                             | S4UL <sup>(a)</sup> |
| Explosives                    |                                |                     |
| Trinitrotoluene               | 1000                           | S4UL <sup>(a)</sup> |
| RDX                           | 210000                         | S4UL <sup>(a)</sup> |
| HMX                           | 110000                         | S4UL <sup>(a)</sup> |
| Pesticides                    |                                |                     |
| Aldrin                        | 170                            | S4UL <sup>(a)</sup> |
| Dieldrin                      | 170                            | S4UL <sup>(a)</sup> |
| Atrazine                      | 9300                           | S4UL <sup>(a)</sup> |
| Dichlorvos                    | 140                            | S4UL <sup>(a)</sup> |
| Endosulfan                    | 5600<br>(0.003) <sup>vap</sup> | S4UL <sup>(a)</sup> |
| Hexachlorocyclohexane         | 170                            | S4UL <sup>(a)</sup> |
| Beta-Hexachlorocyclohexane    | 65                             | S4UL <sup>(a)</sup> |
| Chlorobenzenes                |                                |                     |
| Chlorobenzene                 | 56                             | S4UL <sup>(a)</sup> |
| 2- Dichlorobenzene            | 2000 (571) <sup>sol</sup>      | S4UL <sup>(a)</sup> |
| 4- Dichlorobenzene            | 4400 (224) <sup>vap</sup>      | S4UL <sup>(a)</sup> |
| 1,2,3-Trichlorobenzene        | 102                            | S4UL <sup>(a)</sup> |
| 1,2,4-Trichlorobenzene        | 220                            | S4UL <sup>(a)</sup> |
| 1,3,5-Trichlorobenzene        | 23                             | S4UL <sup>(a)</sup> |
| 1,2,3,4-Tetrachlorobenzene    | 1700 (122) <sup>vap</sup>      | S4UL <sup>(a)</sup> |
| 1,2,3,5-Tetrachlorobenzene    | 49 (39.4) <sup>vap</sup>       | S4UL <sup>(a)</sup> |
| 1,2,4.5 Tetrachlorobenzene    | 42 (19.7) <sup>sol</sup>       | S4UL <sup>(a)</sup> |
| Pentachlorobenzene            | 640 (43.0) <sup>sol</sup>      | S4UL <sup>(a)</sup> |
| Hexachlorobenzene             | 110 (0.20) <sup>vap</sup>      | S4UL <sup>(a)</sup> |
| Others                        |                                |                     |
| Carbon Disulphide             | 11                             | S4UL <sup>(a)</sup> |
| Hexachlorobutadiene           | 31                             | S4UL <sup>(a)</sup> |
| 1,2 - Dichloroethane          | 0.67                           | S4UL <sup>(a)</sup> |
| 1,1,1 - Trichloroethane       | 660                            | S4UL <sup>(a)</sup> |
| 1,1,1,2 - Tetrachloroethane   | 110                            | S4UL <sup>(a)</sup> |
| Chlorobenzene                 | 56                             | S4UL <sup>(a)</sup> |
| 1,2 - Dichlorobenzene         | 2000 (571)sol                  | S4UL <sup>(a)</sup> |
| 1,3 - Dichlorobenzene         | 30                             | S4UL <sup>(a)</sup> |



| 1,4 - Dichlorobenzene       | 4400<br>(224)vap | S4UL <sup>(a)</sup> |
|-----------------------------|------------------|---------------------|
| 2,4,6 Trinitrotoluene (TNT) | 1000             | S4UL <sup>(a)</sup> |

Notes

Soil chemical concentrations should initially be screened against the screening criteria value outside of brackets.

vap Vapour Saturation Limit. Concentration at which soil gas within pore space reaches staruarion limit. Increases in soil concentration above this criteria will not lead to increased soil gas concentrations with pore spaces. This value should not be used within the assessment it is an informative.

<sup>sol</sup> Solubility Saturation Limit. Concentration at which soil water becomes saturated with contaminant. Where this concentration is exceeded, free product may be present with pore spaces. If soils are below the water table exposure to free product upon the water table should be considered qualitatively where it may be present at the ground surface.

dir Screening criteria based on a threshold protective of direct skin contact with phenol. Values in brackets are based on health effects following long term exposure provided for illustration only.

pC4SLs have been used for lead in absence of S4ULs. Value selected is based on LLTC 2: Intake leading to blood lead concentration of 3.5 µg dL-1

When assessing total xyxlene oncentrations these should be compared to the lower of the lowest of the three isomers for the particular land use.

The screening values for the metals are based on a sandy loam with a SOM of 6%

S4ULs assume no free phase contamination is present.

References

<sup>(a)</sup> The LQM/CIEH S4ULs for human Health risk Assessment, 2015

<sup>(b)</sup> CL:AIRE SP1010 Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination (Rev. 2), September 2014



Part 2A (The Contaminated Land Regime)

### Annex 6

#### **Contaminated Land Definition** A6.1

- A6.1.1 Under Section 57 of the Environmental Act 1995, Part 2A was inserted into the Environmental Protection Act 1990 to include provisions for the management of contaminated land.
- A6.1.2 Subsequent regulations were first implemented in England in April 2000, Scotland in July 2000 and Wales in July 20011, providing a definition of 'contaminated land' and setting out the nature of liabilities that can be incurred by owners of contaminated land and groundwater.
- A6.1.3 According to the Act, contaminated land is defined as 'any land which appears to the local authority in whose area the land is situated to be in such a condition, by reason of substances in, on or under the land that:
  - a. significant harm is being caused or there is a significant possibility of such harm being caused; or
  - b. significant pollution of controlled waters<sup>2</sup> is being caused or there is a significant possibility of such pollution being caused3'
- The guidance on determining whether a particular possibility is A6.1.4 significant is based on the principles of risk assessment and in particular on considerations of the magnitude or consequences of the different types of significant harm caused. The term 'possibility of significant harm being caused' should be taken, as referring to a measure of the probability, or frequency, of the occurrence of circumstances that could lead to significant harm being caused.
- A6.1.5 The following situations are defined where harm is to be regarded as significant:

<sup>1</sup> In England by The Contaminated Land (England) Regulations 2000, updated by The

Contaminated Land (Scotland) Regulations 2000, updated by the Contaminated Land

(Scotland) Regulations 2005; and in Wales by The Contaminated Land (Wales) Regulations

Contaminated Land (England) (Amendment) Regulations 2012; in Scotland by The

- Chronic or acute toxic effect, serious injury or death to i. humans
- ii. Irreversible or other adverse harm to the ecological system

- iii. Substantial damage to, or failure of, buildings
- iv. Disease, other physical damage or death of livestock or crops
- v. The pollution of controlled waters<sup>4</sup>.
- A6.1.6 With regard to radioactivity, contaminated land is defined as 'any land which appears to be in such a condition, by reason of substances in, on or under the land that harm is being caused, or there is a significant possibility of such harm being caused5'.

### The Risk Assessment Methodology

A6.1.7 Risk assessment is the process of collating known information on a hazard or set of hazards in order to estimate actual or potential risks to receptors. The receptor may be humans, a water resource, a sensitive local ecosystem or future construction materials. Receptors can be connected with the hazard via one or several exposure pathways (eg the pathway of direct contact). Risks are generally managed by isolating or removing the hazard, isolating the receptor, or by intercepting the exposure pathway. Without the three essential components of a source (hazard), pathway and receptor, there can be no risk. Thus, the mere presence of a hazard at a site does not mean that there will necessarily be attendant risks.

### The Risk Assessment

Services (Scotland) Act 2003.

- A6.1.8 By considering where a viable pathway exists which connects a source with a receptor, this assessment will identify where pollutant linkages may exist. A pollutant linkage is the term used by the DEFRA in their standard procedure on risk assessment. If there is no pollutant linkage, then there is no risk. Therefore, only where a viable pollutant linkage is established does this assessment go on to consider the level of risk. Risk should be based on a consideration of both:
  - The likelihood of an event (probability) takes into account both the presence of the hazard and receptor and the integrity of the pathway.

<sup>2</sup> In Scotland the term "controlled water" has been updated to "water environment" under the

<sup>3</sup> The definition was amended in 2012 by implementation of the Water Act 2003.

Contaminated Land (Scotland) Regulations 2005 in line with the Water Environment and Water

- saturated zone.
- and Contaminated Land (Wales) Regulations 2006.

2001, updated by the Contaminated Land (Wales) Regulations 2006.

### Our northern runway: making best use of Gatwick

The severity of the potential consequence - takes into account both the potential severity of the hazard and the sensitivity of the receptor.

For further information please see the Contaminated Land section on the DEFRA website (www.defra.gov.uk)

<sup>4</sup> Groundwater in this context does not include waters within underground strata but above the

<sup>5</sup> The Radioactive Contaminated Land (Modification of Enactments) (England) Regulations 2006



### Annex 7

## Strategy for Further Works





