

A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010041

6.8 Environmental Statement – Appendix 11.4 Ground Investigation Works

**2 of 2
Part B**

APFP Regulation 5(2)(a)

Planning Act 2008

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

June 2020

Infrastructure Planning

Planning Act 2008

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

The A1 in Northumberland: Morpeth to Ellingham
Development Consent Order 20[xx]

Environmental Statement - Appendix

Regulation Reference:	APFP Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010041
Application Document Reference	TR010041/APP/6.8
Author:	A1 in Northumberland: Morpeth to Ellingham Project Team, Highways England

Version	Date	Status of Version
Rev 0	June 2020	Application Issue

TEST REPORT



Report No. EFS/193469 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 Morpeth to Felton & Alnwick to Ellingh

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 05-Dec-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 13-Dec-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited
Becky Batham



Operations Manager
Energy & Waste Services

Date of Issue: 13-Dec-2018

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Units :	mg/kg	mg/l	%	pH Units																
Method Codes :	ICPACIDS	ICPWSS	TSBRE1	WSLM50																
Method Reporting Limits :	20	10	0.005																	
UKAS Accredited :	Yes	Yes	No	No																

LAB ID Number CL/	Client Sample Description	Sample Date	SO4-- (acid sol)	SO4-- (H2O sol) mg/l	Total Sulphur.	pH (BS1377)														
1936190	BH/17/12 D 2 0.30		506	<10	0.043	7.9														
1936191	BH/17/12 D 6 1.70		361	22	0.036	7.6														
1936192	TP/17/14 D 3 0.60		207	<10	0.028	7.0														

 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422	Client Name SOCOTEC UK Doncaster	Sample Analysis	
	Contact Neil Cooke		
	A8013-18 A1 Morpeth to Felton & Alnwick to Ellingh		Date Printed 13-Dec-2018
			Report Number EFS/193469
Table Number 1			

Customer SOCOTEC UK Doncaster

Site A8013-18 A1 Morpeth to Felton & Alnwick to Ellingham Date Logged 05-Dec-2018

Report No S193469 In-House Report Due 12-Dec-2018

Consignment No S81086

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	ClustServ	Dep.Ord	DO Mg if SO4(W)>3000	DO NO3 if pH<5.5	SO4-- (acid sol)	ICPACIDS	ICPBRE	ICPWSS	KONECL	KoneNO3	TSBRE1	VSLM50
		REPORT A	DO Cl if pH<5.5	DO Cl if SO4(W)>3000										
								✓		✓				
CL/1936190	BH/17/12 0.30	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1936191	BH/17/12 1.70	D	D				D	D	D	D	D	D	D	D
CL/1936192	TP/17/14 0.60	D	D				D	D	D	D	D	D	D	D

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried @ < 35°C	Determination of Water Soluble Sulphate in soil samples by water extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried @ < 35°C	Determination of Total Carbon and/or Total Sulphur in solid samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried @ < 35°C	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



1252

Report No. EFS/194145 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 Al Alnwick to Ellington

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 22-Dec-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 07-Jan-2019

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

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Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited
Becky Batham
Operations Manager
Energy & Waste Services

Date of Issue: 07-Jan-2019

Tests marked 'N' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Customer **SOCOTEC UK Doncaster**
Site **A8013-18 Al Alnwik to Ellington**
Report No **S194145**

Consignment No S81530
Date Logged 22-Dec-2018
In-House Report Due 07-Jan-2019

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	ClstServ	Dep.Ord		ICPACIDS	ICPBRE	ICPWSS	KONECL	KoneNO3	TSBRE1	WSLM50
		Sampled	REPORT A	DO Cl if pH<5.5	DO Mg if SO4(W)>3000	DO NO3 if pH<5.5	SO4-- (acid sol)	Magnesium (BRE)	SO4-- (H2O sol) mg/l	Chloride:(2:1)	Nitrate (BRE 2:1): mg/l	Total Sulphur.
						✓		✓				
CL/1939005	BH17/07 7.00	D	D	D	D	D	D	D	D	D	D	D

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried @ < 35°C	Determination of Water Soluble Sulphate in soil samples by water extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried @ < 35°C	Determination of Total Carbon and/or Total Sulphur in solid samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried @ < 35°C	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

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TEST REPORT



1252

Report No. EFS/189967 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 Alnwick to Ellingham

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 14-Sep-2018. This report supersedes any versions previously issued by the laboratory.

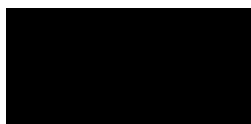
The analysis was completed by: 20-Sep-2018

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On behalf of
SOCOTEC UK
Tim Barnes



Operations Director
Energy & Waste Services

Date of Issue: 20-Sep-2018

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Units :	mg/kg	mg/l	%	pH Units																
Method Codes :	ICPACIDS	ICPWSS	TSBRE1	WSLM50																
Method Reporting Limits :	20	10	0.005																	
UKAS Accredited :	Yes	Yes	No	No																

LAB ID Number	Client Sample Description	Sample Date	SO4-- (acid sol)	SO4-- (H2O sol) mg/l	Total Sulphur.	pH (BS1377)														
1922123	BH/17/01 D 9 2.70		727	159	0.233	8.1														
1922124	BH/17/02 D 6 1.10		220	42	0.144	8.3														
1922125	BH/17/13 D 8 3.20		365	52	0.097	8.4														

 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>	Client Name	SOCOTEC UK Doncaster	Sample Analysis			
	Contact	Tim Rust				
	A8013-18 A1 Alnwick to Ellingham		Date Printed	20-Sep-2018		
			Report Number	EFS/189967		
Table Number			1			

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 Alnwick to Ellingham
Report No S189967

Consignment No S78154
Date Logged 14-Sep-2018
In-House Report Due 20-Sep-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	ClstServ	Dep.Ord		ICPACIDS	ICPBRE	ICPWSS	KONECL	KoneNO3	TSBRE1	MSLM50
		Sampled	REPORT A	DO Cl if pH<5.5	DO Mg if SO4(W)>3000	DO NO3 if pH<5.5	SO4-- (acid sol)	Magnesium (BRE)	SO4-- (H2O sol) mg/l	Chloride:(2:1)	Nitrate (BRE 2:1): mg/l	Total Sulphur.
						✓		✓				
CL/1922123	BH/17/01 2.70	D	D	D	D	D	D	D	D	D	D	D
CL/1922124	BH/17/02 1.10	D	D			D	D	D	D	D	D	D
CL/1922125	BH/17/13 3.20-3.65	D	D			D	D	D	D	D	D	D

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Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
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E	Sample processing did not commence within the appropriate holding time
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Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried @ < 35°C	Determination of Water Soluble Sulphate in soil samples by water extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried @ < 35°C	Determination of Total Carbon and/or Total Sulphur in solid samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried @ < 35°C	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

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¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

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TEST REPORT



1252

Report No. EFS/189968 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 Alnwick to Ellingham

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Operations Director
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Date of Issue: 20-Sep-2018

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Customer SOCOTEC UK Doncaster
Site A8013-18 A1 Alnwick to Ellingham
Report No S189968

Consignment No S78154
Date Logged 14-Sep-2018
In-House Report Due 20-Sep-2018

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ID Number	Description	MethodID	ClstServ	Dep.Ord		ICPACIDS	ICPBRE	ICPWSS	KONECL	KoneNO3	TSBRE1	WSLM50
		Sampled	REPORT A	DO Cl if pH<5.5	DO Mg if SO4(W)>3000	DO NO3 if pH<5.5	SO4-- (acid sol)	Magnesium (BRE)	SO4-- (H2O sol) mg/l	Chloride:(2:1)	Nitrate (BRE 2:1): mg/l	Total Sulphur.
						✓		✓				
CL/1922126	TP/17/02 0.80	D	D	D	D	D	D	D	D	D	D	D

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Intf Unable to analyse due to interferences

N.D Not determined

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SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
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DN6 8DG

Site: A8013-18 A1 Alnwick to Ellingham

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 14-Sep-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 20-Sep-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited
Tim Barnes
Operations Director
Energy & Waste Services

Date of Issue: 20-Sep-2018

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 Alnwick to Ellingham
Report No S189969

Consignment No S78154
Date Logged 14-Sep-2018
In-House Report Due 20-Sep-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	ClstServ	Dep.Ord		ICPACIDS	ICPBRE	ICPWSS	KONECL	KoneNO3	TSBRE1	WSLM50
		Sampled	REPORT A	DO Cl if pH<5.5	DO Mg if SO4(W)>3000	DO NO3 if pH<5.5	SO4-- (acid sol)	Magnesium (BRE)	SO4-- (H2O sol) mg/l	Chloride:(2:1)	Nitrate (BRE 2:1): mg/l	Total Sulphur.
						✓		✓				
CL/1922127	TP/17/07 1.40	D	D	D	D	D	D	D	D	D	D	D

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried @ < 35°C	Determination of Water Soluble Sulphate in soil samples by water extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried @ < 35°C	Determination of Total Carbon and/or Total Sulphur in solid samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried @ < 35°C	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

APPENDIX F
GEOENVIRONMENTAL LABORATORY TEST RESULTS

Soil Sample Analysis Test Reports

EFS/188497
EFS/189114
EFS/189115
EFS/189116
EFS/190987
EFS/190988
EFS/190990
EFS/191142
EFS/191143
EFS/191212
EFS/191729
EFS/191730

Water Sample Analysis Test Reports

EXR/274297
EXR/274392

TEST REPORT



Report No. EFS/188497 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 02-Aug-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 14-Aug-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Table of Asbestos Screening Results (Page 7)
Analytical and Deviating Sample Overview (Pages 8 to 9)
Table of Additional Report Notes (Page 10)
Table of Method Descriptions (Page 11)
Table of Report Notes (Page 12)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited
Tim Barnes
Operations Director
Energy & Waste Services

Date of Issue: 14-Aug-2018

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SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S188497

Consignment No S76371
Date Logged 02-Aug-2018
In-House Report Due 09-Aug-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	BTEXHSA	GALC.GRS	CustServ	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPSSOIL	KONECR	PAHMSUS	PHSOIL											
			MTBE (µg/kg)	Chromium (III)	REPORT A	GRO (AA) by HSA GC-FID	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)					Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)
			✓			✓	✓	✓	✓			✓	✓											
CL/1917199	BH/17/01 0.20	D	D	D	D	D	D	D	D	D	D	D	D											
CL/1917200	BH/17/02 0.75	D	D	D	D	D	D	D	D	D	D	D	D											
CL/1917201	BH/17/13 0.30	D	D	D	D	D	D	D	D	D	D	D	D											
CL/1917202	BH/17/14 0.75	D	D	D	D	D	D	D	D	D	D	D	D											

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
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F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S188497

Consignment No S76371
Date Logged 02-Aug-2018
In-House Report Due 09-Aug-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	SFAP1	Sub002	TMSS	TPHUS1	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/ID (AR/SI)	Total Organic Carbon	WSLMS9
			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CL/1917199	BH/17/01 0.20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1917200	BH/17/02 0.75	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1917201	BH/17/13 0.30	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1917202	BH/17/14 0.75	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



Report No. EFS/189114 (Ver. 2)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 Alnwick To Ellingham

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 20-Aug-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 30-Aug-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Subcontracted Analysis Reports (Pages 7 to 8)
The accreditation status of subcontracted analysis is displayed on the appended subcontracted analysis reports.
Analytical and Deviating Sample Overview (Pages 9 to 10)
Table of Additional Report Notes (Page 11)
Table of Method Descriptions (Page 12)
Table of Report Notes (Page 13)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Li
Tim Barnes



Operations Director
Energy & Waste Services

Date of Issue: 30-Aug-2018

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S00604-15

DATE OF ISSUE: 28.08.18

DATE SAMPLES RECEIVED: 22.08.18

DATE SAMPLES ANALYSED: 27.08.18

SAMPLE DESCRIPTION: Four soil/loose aggregate samples.

ANALYSIS REQUESTED: Qualitative analysis of samples for determination of presence/type of asbestos.

METHODS:

Our method involves initial examination of entire samples followed by detailed analysis of representative sub-samples. The sub-samples are analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

RESULTS:

Initial Screening

No asbestos was detected in any of the soil samples by stereo-binocular and polarised light microscopy.

A summary of the results is given in Table 1.



CONTRACT NO: S00604-15
DATE OF ISSUE: 28.08.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S189114

IOM sample number	Client sample number	ACM type detected	PLM result
S59976	S1919333 TP/17/05 0.10	-	No Asbestos Detected
S59977	S1919334 TP/17/10 0.20	-	No Asbestos Detected
S59978	S1919335 TP/17/35 0.80	-	No Asbestos Detected
S59979	S1919336 TP/17/48 0.20	-	No Asbestos Detected

Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.

AUTHORISED BY:


D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 Alnwick To Ellingham
Report No S189114

Consignment No S76690
Date Logged 20-Aug-2018
In-House Report Due 28-Aug-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	BTEXHSA	GALC.GRS	CustServ	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPSSOIL	KONECR	PAHMSUS	PHSOIL											
			MTBE (µg/kg)	Chromium (III)	REPORT A	GRO (AA) by HSA GC-FID	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)		Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)	Barium.	Beryllium.
			✓			✓	✓	✓	✓			✓	✓											
CL/1919333	TP/17/05 0.10	D	D	D	D	D	D	D	D	D	D	D	D											
CL/1919334	TP/17/10 0.20	D	D	D	D	D	D	D	D	D	D	D	D											
CL/1919335	TP/17/35 0.80	D	D	D	D	D	D	D	D	D	D	D	D											
CL/1919336	TP/17/48 0.20	D	D	D	D	D	D	D	D	D	D	D	D											

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Deviating Sample Key	
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Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
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Where individual results are flagged see report notes for status.

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 Alnwick To Ellingham
Report No S189114

Consignment No S76690
Date Logged 20-Aug-2018
In-House Report Due 28-Aug-2018

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ID Number	Description	MethodID	SFAP1	Sub020	TMSS	TPHUS1	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/FID (AR/SI)	Total Organic Carbon	WSLMS9	
																						Phenol Index.(AR)
			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CL/1919333	TP/17/05 0.10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1919334	TP/17/10 0.20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1919335	TP/17/35 0.80	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1919336	TP/17/48 0.20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D

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Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
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All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



1252

Report No. EFS/189115 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 20-Aug-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 31-Aug-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Subcontracted Analysis Reports (Pages 7 to 8)
The accreditation status of subcontracted analysis is displayed on the appended subcontracted analysis reports.
Analytical and Deviating Sample Overview (Pages 9 to 10)
Table of Additional Report Notes (Page 11)
Table of Method Descriptions (Page 12)
Table of Report Notes (Page 13)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited
Tim Barnes
Operations Director
Energy & Waste Services

Date of Issue: 31-Aug-2018

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S00604-16

DATE OF ISSUE: 28.08.18

DATE SAMPLES RECEIVED: 22.08.18

DATE SAMPLES ANALYSED: 27.08.18

SAMPLE DESCRIPTION: Two soil/loose aggregate samples.

ANALYSIS REQUESTED: Qualitative analysis of samples for determination of presence/type of asbestos.

METHODS:

Our method involves initial examination of entire samples followed by detailed analysis of representative sub-samples. The sub-samples are analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

RESULTS:

Initial Screening

No asbestos was detected in either of the soil samples by stereo-binocular and polarised light microscopy.

A summary of the results is given in Table 1.



CONTRACT NO: S00604-16
DATE OF ISSUE: 28.08.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S189115

IOM sample number	Client sample number	ACM type detected	PLM result
S59980	S1919337 TP/17/03 1.20	-	No Asbestos Detected
S59981	S1919338 TP/17/04 0.10	-	No Asbestos Detected

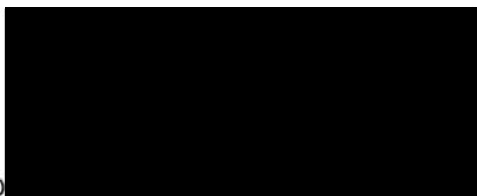
Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.

AUTHORISED



D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S189115

Consignment No S76588
Date Logged 20-Aug-2018
In-House Report Due 28-Aug-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	SFAP1	Sub020	TMSS	TPHUS1	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/FID (AR/SI)	Total Organic Carbon	WSLMS9	
																					✓	
CL/1919337	TP/17/03 1.20	18/07/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
CL/1919338	TP/17/04 0.10	18/07/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
 	Analysis Required
 	Analysis dependant upon trigger result - Note: due date may be affected if triggered
 	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



1252

Report No. EFS/189116 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 20-Aug-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 31-Aug-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

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Table of Report Notes (Page 12)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK
Tim Barnes



Operations Director
Energy & Waste Services

Date of Issue: 31-Aug-2018

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S00604-17

DATE OF ISSUE: 28.08.18

DATE SAMPLES RECEIVED: 22.08.18

DATE SAMPLES ANALYSED: 27.08.18

SAMPLE DESCRIPTION: Three soil/loose aggregate samples.

ANALYSIS REQUESTED: Qualitative analysis of samples for determination of presence/type of asbestos.

METHODS:

Our method involves initial examination of entire samples followed by detailed analysis of representative sub-samples. The sub-samples are analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

RESULTS:

Initial Screening

No asbestos was detected in any of the soil samples by stereo-binocular and polarised light microscopy.

A summary of the results is given in Table 1.



CONTRACT NO: S00604-17
DATE OF ISSUE: 28.08.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S189116

IOM sample number	Client sample number	ACM type detected	PLM result
S59982	S1919339 BH/17/08 0.10	-	No Asbestos Detected
S59983	S1919340 BH/17/09 0.20	-	No Asbestos Detected
S59984	S1919341 BH/17/11 0.20	-	No Asbestos Detected

Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.



AUTHORISED BY:
D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S189116

Consignment No S76857
Date Logged 20-Aug-2018
In-House Report Due 28-Aug-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	SFAP1	Sub020	TMSS	TPHUS1	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/FID (AR/SI)	Total Organic Carbon	WSLMS9	
																						Phenol Index.(AR)
			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CL/1919339	BH/17/08 0.10					A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		
CL/1919340	BH/17/09 0.20	25/07/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
CL/1919341	BH/17/11 0.20																					

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



Report No. EFS/190987M (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 08-Oct-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 19-Oct-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS or MCERTS accredited. Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by SOCOTEC UK Limited.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Subcontracted Analysis Reports (Pages 7 to 8)
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Analytical and Deviating Sample Overview (Pages 9 to 10)
Table of Method Descriptions (Page 11)
Table of Report Notes (Page 12)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited
Becky Batham



Operations Manager
Energy & Waste Services

Date of Issue: 19-Oct-2018

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)

Tests marked 'A' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based, and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples)
SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S01536-7

DATE OF ISSUE: 19.10.18

DATE SAMPLES RECEIVED: 10.10.18

DATE SAMPLES ANALYSED: 18.10.18

SAMPLE DESCRIPTION: Four soil/loose aggregate samples.

ANALYSIS REQUESTED: Qualitative analysis of samples for determination of presence/type of asbestos.

METHODS:

Our method involves initial examination of the samples followed by detailed analysis of representative sub-samples. The sub-samples are analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

RESULTS:

Initial Screening

No asbestos was detected in any of the soil samples by stereo-binocular and polarised light microscopy.

A summary of the results is given in Table 1.



CONTRACT NO: S01536-7
DATE OF ISSUE: 19.10.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S190987

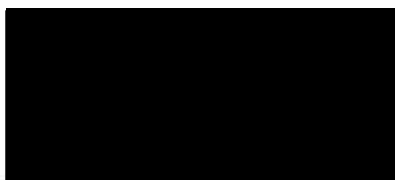
IOM sample number	Client sample number	ACM type detected	PLM result
S61115	S1925851 TP/17/33 0.30	-	No Asbestos Detected
S61116	S1925852 TP/17/36 0.50	-	No Asbestos Detected
S61117	S1925853 TP/17/40 0.50	-	No Asbestos Detected
S61118	S1925854 TP/17/41 0.10	-	No Asbestos Detected

Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.



AUTHORISED BY:

D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S190987M

Consignment No S78765
Date Logged 08-Oct-2018
In-House Report Due 11-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	PHSOIL	SFAP1	Sub020	TMSS	TPHUS1	TPHUS2	TPHUS3	TPHUS4	TPHUS5	TPHUS6	TPHUS7	TPHUS8	TPHUS9	TPHUS10	TPHUS11	TPHUS12	TPHUS13	TPHUS14	TPHUS15	TPHUS16	TPHUS17	TPHUS18	TPHUS19	TPHUS20	W/S/LM59
			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CL/1925851	TP/17/33 0.30	20/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
CL/1925852	TP/17/36 0.50	21/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
CL/1925853	TP/17/40 0.50	13/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
CL/1925854	TP/17/41 0.10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



Report No. EFS/190988M (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 08-Oct-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 19-Oct-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS or MCERTS accredited. Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by SOCOTEC UK Limited.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Subcontracted Analysis Reports (Pages 7 to 8)
The accreditation status of subcontracted analysis is displayed on the appended subcontracted analysis reports.
Analytical and Deviating Sample Overview (Pages 9 to 10)
Table of Method Descriptions (Page 11)
Table of Report Notes (Page 12)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited
Becky Batham
Operations Manager
Energy & Waste Services

Date of Issue: 19-Oct-2018

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)

Tests marked 'A' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based, and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples)
SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.


Units :	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Codes :	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	CALC_CR3	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA
Method Reporting Limits :	10	10	20	20	10	10	30	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Accreditation Code:	UM	UM	UM	U	UM	UM	UM	N	UM	UM	UM	UM	UM	UM	UM	UM	UM


LAB ID Number	Client Sample Description	Sample Date	Benzene	Ethyl Benzene	m/p Xylenes	MTBE	o Xylene	Toluene	Xylenes	Chromium (III)	GRO	GRO (>C5 - C6)	GRO (>C7 - C8)	GRO (>C8 - C10)	GRO (C5-C6 Aliphatic)	GRO (C6-C7 Aliphatic)	GRO (C6-C7)	GRO (C7-C8 Aliphatic)
1925855	TP/17/20 ES 3 0.30	10-Sep-18	<12	<12	<24	<24	<12	<12	<36	<28.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2


 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>	Client Name	SOCOTEC UK Doncaster	Sample Analysis	
	Contact	Neil Cooke		
	A8013-18 A1 In Morpeth To Felton & Alnwick		Date Printed	19-Oct-2018
			Report Number	EFS/190988M
			Table Number	1

Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Codes :	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS
Method Reporting Limits :	0.2	20	0.5	0.1	0.3	0.2	1.2	1.6	0.7	6	0.5	0.5	2	0.5	0.6	16		
Accreditation Code:	UM	UM	UM	U	UM	UM	UM	UM	UM	UM	UM	UM	UM	UM	N	UM		

LAB ID Number	Client Sample Description	Sample Date	GRO (C8-C10 Aliphatic)	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)
1925855	TP/17/20 ES 3 0.30	10-Sep-18	<0.2	435	1.4	0.2	5.9	0.25	28.1	13.5	19	3700	<0.5	<0.5	28.3	<0.5	34.2	85

 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422	Client Name	SOCOTEC UK Doncaster				Sample Analysis									
	Contact	Neil Cooke													
	A8013-18 A1 In Morpeth To Felton & Alnwick						Date Printed	19-Oct-2018							
							Report Number	EFS/190988M							
Table Number							1								

LAB ID Number	Client Sample Description	Sample Date	Units :															
			Method Codes :															
			Method Reporting Limits :															
			Accreditation Code:															
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			ICPSOIL	ICPSOIL	ICPSOIL	KONECR	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS
			0.5	0.1	36	0.1	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
			UM	UM	UM	N	UM	U	U	UM	UM	UM	UM	UM	UM	UM	UM	UM
			Barium.	Beryllium.	Iron	Chromium vi:	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(ah)anthracene	Fluoranthene	Fluorene
1925855	TP/17/20 ES 3 0.30	10-Sep-18	285	1.16	36800	<0.1	<0.09	<0.09	<0.09	<0.09	>0.09	<0.09	<0.09	>0.09	<0.09	<0.09	>0.09	<0.09
 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			Client Name	SOCOTEC UK Doncaster								Sample Analysis						
			Contact	Neil Cooke														
			A8013-18 A1 In Morpeth To Felton & Alnwick								Date Printed	19-Oct-2018						
											Report Number	EFS/190988M						
											Table Number	1						

			Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			Method Codes :	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PHSOIL	SFAPI	SFAPI	SFAPI	Sub020	TMSS	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI
			Method Reporting Limits :	0.08	0.08	0.08	0.08	1.28		0.5	0.5	0.5	U	0.1	4	4	4	8.75	4
			Accreditation Code:	UM	UM	UM	UM	U	UM	UM	UM	U	U	U	U	U	U	U	U
LAB ID Number	Client Sample Description	Sample Date	Indeno(123-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH (Sum of USEPA 16)	pH units (AR)	Cyanide(Free) (AR)	Cyanide(Total) (AR)	Phenol Index (AR)	Asbestos ID (Stage 1)	Tot.Moisture @ 105C	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	
1925855	TP/17/20 ES 3 0.30	10-Sep-18	<0.09	<0.09	<0.09	<0.09	<1.52	6.2	<0.6	<0.6	<0.6	NADIS	15.6	<4.79	<4.79	<4.79	33.3	<4.79	
 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			Client Name	SOCOTEC UK Doncaster								Sample Analysis							
			Contact	Neil Cooke								Date Printed	19-Oct-2018						
			A8013-18 A1 In Morpeth To Felton & Alnwick									Report Number	EFS/190988M						
												Table Number	1						

Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% M/M									
Method Codes :	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	WSLM59									
Method Reporting Limits :	20	4	4	4	8.75	4	20	0.02										
Accreditation Code:	U	U	U	U	U	U	U	N										

LAB ID Number	Client Sample Description	Sample Date	TPH AII Band >C8-C10	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	Total Organic Carbon								
1925855	TP/17/20 ES 3 0.30	10-Sep-18	41.9	<4.74	<4.74	<4.74	<10.38	<4.74	<23.7	1.22								

 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422	Client Name SOCOTEC UK Doncaster	Sample Analysis
	Contact Neil Cooke	
	A8013-18 A1 In Morpeth To Felton & Alnwick	

Date Printed	19-Oct-2018
Report Number	EFS/190988M
Table Number	1

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S01536-8

DATE OF ISSUE: 19.10.18

DATE SAMPLES RECEIVED: 10.10.18

DATE SAMPLES ANALYSED: 18.10.18

SAMPLE DESCRIPTION: One soil/loose aggregate sample.

ANALYSIS REQUESTED: Qualitative analysis of a sample for determination of presence/type of asbestos.

METHODS:

Our method involves initial examination of the samples followed by detailed analysis of representative sub-samples. The sub-samples are analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

RESULTS:

Initial Screening

No asbestos was detected in the soil sample by stereo-binocular and polarised light microscopy.

A summary of the result is given in Table 1.



CONTRACT NO: S01536-8
DATE OF ISSUE: 19.10.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S190988

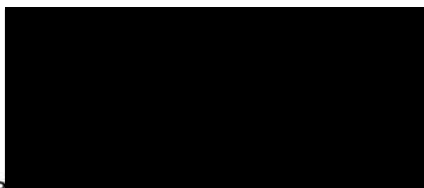
IOM sample number	Client sample number	ACM type detected	PLM result
S61119	S1925855 TP/17/20 0.30	-	No Asbestos Detected

Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.



AUTHORISED BY:

D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S190988M

Consignment No S78234
Date Logged 08-Oct-2018
In-House Report Due 11-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	BTEXHSA	GALC.CRS	CustServ	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPSOIL	KONECR	MCerts	PAHMSUS												
		Sampled	MTBE (µg/kg)	Chromium (III)	REPORT A	GRO (AA) by HSA GC-FID	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)		Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)	Barium.	Beryllium.	Iron
CL/1925855	TP/17/20 0.30	10/09/18	E			E	✓	✓	✓	✓		✓	✓												

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S190988M

Consignment No S78234
Date Logged 08-Oct-2018
In-House Report Due 11-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	PHSOIL	SFAPL	Sub020	TMSS	TPHUS1	TPHUS2	TPHUS3	TPHUS4	TPHUS5	TPHUS6	TPHUS7	TPHUS8	TPHUS9	TPHUS10	TPHUS11	TPHUS12	TPHUS13	TPHUS14	TPHUS15	TPHUS16	TPHUS17	TPHUS18	TPHUS19	TPHUS20	W/S/LM59
CL/1925855	TP/17/20 0.30	10/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

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Requested Analysis Key	
 	Analysis Required
 	Analysis dependant upon trigger result - Note: due date may be affected if triggered
 	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



Report No. EFS/190990M (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 08-Oct-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 19-Oct-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS or MCERTS accredited. Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by SOCOTEC UK Limited.

The following tables are contained in this report:

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On behalf of
SOCOTEC UK Limited
Becky Batham
Operations Manager
Energy & Waste Services


Date of Issue: 19-Oct-2018

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)

Tests marked 'A' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based, and is therefore not accredited for MCERTS.


All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples)
SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.


LAB ID Number	Client Sample Description	Sample Date	Units :																
			Method Codes :																
			Method Reporting Limits :																
			Accreditation Code:																
			µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	CALC_CR3	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA
			10	10	20	20	10	10	30	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			UM	UM	UM	U	UM	UM	UM	N	UM	UM	UM	UM	UM	UM	UM	UM	UM
			Benzene	Ethyl Benzene	m/p Xylenes	MTBE	o Xylene	Toluene	Xylenes	Chromium (III)	GRO	GRO (>C5 - C6)	GRO (>C7 - C8)	GRO (>C8 - C10)	GRO (C5-C6 Aliphatic)	GRO (C6-C7 Aliphatic)	GRO (C6-C7)	GRO (C7-C8 Aliphatic)	
1925859	BH/17/03 ES 2 0.50		<12.5	<12.5	<25.0	<25.0	<12.5	<12.5	<37.5	<33.5	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	
1925860	BH/17/06 ES 1 0.15	17-Sep-18	<11.3	<11.3	<22.7	<22.7	<11.3	<11.3	<34.0	<25.9	<0.227	<0.227	<0.227	<0.227	<0.227	<0.227	<0.227	<0.227	
1925861	BH17/07 ES 5 0.70	18-Sep-18	<11.2	<11.2	<22.5	<22.5	<11.2	<11.2	<33.7	<19.8	<0.225	<0.225	<0.225	<0.225	<0.225	<0.225	<0.225	<0.225	
 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			Client Name		SOCOTEC UK Doncaster					Sample Analysis									
			Contact		Neil Cooke					Date Printed		19-Oct-2018							
			A8013-18 A1 In Morpeth To Felton & Alnwick									Report Number		EFS/190990M					
Table Number		1																	

Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Codes :	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS
Method Reporting Limits :	0.2	20	0.5	0.1	0.3	0.2	1.2	1.6	0.7	6	0.5	0.5	2	0.5	0.6	16	
Accreditation Code:	UM	UM	UM	U	UM	UM	UM	UM	UM	UM	UM	UM	UM	UM	N	UM	

LAB ID Number	Client Sample Description	Sample Date	GRO (C8-C10 Aliphatic)	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)
1925859	BH/17/03 ES 2 0.50		<0.250	<21	1	0.2	10.5	<0.21	33.5	19.7	15.8	448.2	<0.5	0.9	34.8	<0.5	34.0	45.6
1925860	BH/17/06 ES 1 0.15	17-Sep-18	<0.227	552	1	0.5	9.7	0.24	25.9	26.9	37.4	1490	<0.51	1.2	26	<0.5	52.9	110.7
1925861	BH17/07 ES 5 0.70	18-Sep-18	<0.225	209	0.8	0.3	6.9	<0.19	19.8	21.2	12.4	908.1	<0.5	0.6	24.7	<0.5	43.8	80.2

 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422	Client Name SOCOTEC UK Doncaster	Sample Analysis		
	Contact Neil Cooke			
	A8013-18 A1 In Morpeth To Felton & Alnwick		Date Printed 19-Oct-2018	
			Report Number EFS/190990M	
Table Number 1				

LAB ID Number	Client Sample Description	Sample Date	Units :															
			Method Codes :															
			Method Reporting Limits :															
			Accreditation Code:															
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			ICPSOIL	ICPSOIL	ICPSOIL	KONECR	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS
			0.5	0.1	36	0.1	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
			UM	UM	UM	N	UM	U	U	UM	UM	UM	UM	UM	UM	UM	UM	UM
			Barium.	Beryllium.	Iron	Chromium vi.	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(ah)anthracene	Fluoranthene	Fluorene
1925859	BH/17/03 ES 2 0.50		233	1.21	47200	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1925860	BH/17/06 ES 1 0.15	17-Sep-18	90.5	0.770	50600	<0.1	<0.09	<0.09	<0.09	0.24	0.24	0.29	0.12	0.11	0.22	<0.09	0.50	<0.09
1925861	BH17/07 ES 5 0.70	18-Sep-18	139	0.580	38100	<0.1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name		SOCOTEC UK Doncaster						Sample Analysis							
			Contact		Neil Cooke													
			A8013-18 A1 In Morpeth To Felton & Alnwick						Date Printed			19-Oct-2018						
									Report Number			EFS/190990M						
Table Number									1									

Units :			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	mg/kg	mg/kg	mg/kg		%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
Method Codes :			PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PHSOIL	SFAP1	SFAP1	SFAP1	Sub020	TMSS	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI			
Method Reporting Limits :			0.08	0.08	0.08	0.08	1.28		0.5	0.5	0.5		0.1	4	4	4	8.75	4			
Accreditation Code:			UM	UM	UM	UM	U	UM	UM	UM	U	U	U	U	U	U	U	U			
LAB ID Number	Client Sample Description	Sample Date	Indeno(123-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH (Sum of USEPA 16)	pH units (AR)	Cyanide(Free) (AR)	Cyanide(Total) (AR)	Phenol Index (AR)	Asbestos ID (Stage 1)	Tot.Moisture @ 105C	TPH All Band >C10-C12	TPH All Band >C12-C16	TPH All Band >C16-C21	TPH All Band >C21-C35	TPH All Band >C8-C10			
1925859	BH/17/03 ES 2 0.50		<0.10	<0.10	<0.10	<0.10	<1.60	7	<0.6	<0.6	<0.6	NADIS	19.9	<5.19	<5.19	<5.19	<11.37	<5.19			
1925860	BH/17/06 ES 1 0.15	17-Sep-18	0.16	<0.09	0.46	0.37	<3.27	5.9	<0.6	<0.6	<0.6	NADIS	11.8	<4.67	<4.67	<4.67	10.32	<4.67			
1925861	BH17/07 ES 5 0.70	18-Sep-18	<0.09	<0.09	<0.09	<0.09	<1.44	8.1	<0.6	<0.6	<0.6	NADIS	11.0	<4.63	<4.63	<4.63	14.2	<4.63			
 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			Client Name		SOCOTEC UK Doncaster						Sample Analysis										
			Contact		Neil Cooke																
			A8013-18 A1 In Morpeth To Felton & Alnwick												Date Printed	19-Oct-2018					
															Report Number	EFS/190990M					
															Table Number	1					

Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% M/M										
Method Codes :	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	WSLM59										
Method Reporting Limits :	20	4	4	4	8.75	4	20	0.02											
Accreditation Code:	U	U	U	U	U	U	U	N											

LAB ID Number	Client Sample Description	Sample Date	TPH AII Band >C8-C10	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	Total Organic Carbon										
1925859	BH/17/03 ES 2 0.50		<26.0	<4.99	<4.99	<4.99	<10.94	<4.99	<25.0	0.97										
1925860	BH/17/06 ES 1 0.15	17-Sep-18	<23.4	<4.54	6.86	6.81	30.7	<4.54	47.3	2.16										
1925861	BH17/07 ES 5 0.70	18-Sep-18	<23.1	<4.49	<4.49	<4.49	15.4	<4.49	<22.5	0.81										

 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>	Client Name	SOCOTEC UK Doncaster	Sample Analysis		
	Contact	Neil Cooke			
	A8013-18 A1 In Morpeth To Felton & Alnwick			Date Printed	19-Oct-2018
				Report Number	EFS/190990M
Table Number				1	

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S01536-9

DATE OF ISSUE: 19.10.18

DATE SAMPLES RECEIVED: 10.10.18

DATE SAMPLES ANALYSED: 18.10.18

SAMPLE DESCRIPTION: Three soil/loose aggregate samples.

ANALYSIS REQUESTED: Qualitative analysis of samples for determination of presence/type of asbestos.

METHODS:

Our method involves initial examination of the samples followed by detailed analysis of representative sub-samples. The sub-samples are analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

RESULTS:

Initial Screening

No asbestos was detected in any of the soil samples by stereo-binocular and polarised light microscopy.

A summary of the results is given in Table 1.



CONTRACT NO: S01536-9
DATE OF ISSUE: 19.10.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S190990

IOM sample number	Client sample number	ACM type detected	PLM result
S61120	S1925859 BH/17/03 0.50	-	No Asbestos Detected
S61121	S1925860 BH/17/06 0.15	-	No Asbestos Detected
S61122	S1925861 BH/17/07 0.70	-	No Asbestos Detected

Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.

AUTHORISED BY: 
.....
D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S190990M

Consignment No S78090
Date Logged 08-Oct-2018
In-House Report Due 11-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	BTEXHSA	CALC.CRS	CustServ	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPMSOIL	KONECR	MCErTS	PAHMSUS											
			MTBE (µg/kg)	Chromium (III)	REPORT A	GRO (AA) by HSA GC-FID	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)					Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)
			✓			✓	✓	✓	✓			✓	✓											
CL/1925859	BH/17/03 0.50	D	D	D	D	D	D	D	D	D	D	D	D											
CL/1925860	BH/17/06 0.15	17/09/18	E			E							E											
CL/1925861	BH17/07 0.70	18/09/18	E			E							E											

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
 	Analysis Required
 	Analysis dependant upon trigger result - Note: due date may be affected if triggered
 	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S190990M

Consignment No S78090
Date Logged 08-Oct-2018
In-House Report Due 11-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	PHSOIL	SFAP1	Sub020	TMSS	TPHUS1	TPHUS2	TPHUS3	TPHUS4	TPHUS5	TPHUS6	TPHUS7	TPHUS8	TPHUS9	TPHUS10	TPHUS11	TPHUS12	TPHUS13	TPHUS14	TPHUS15	TPHUS16	TPHUS17	TPHUS18	TPHUS19	TPHUS20	W/S/LM59
			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CL/1925859	BH/17/03 0.50	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
CL/1925860	BH/17/06 0.15	17/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
CL/1925861	BH17/07 0.70	18/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
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Requested Analysis Key	
 	Analysis Required
 	Analysis dependant upon trigger result - Note: due date may be affected if triggered
 	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



Report No. EFS/191142 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 10-Oct-2018. This report supersedes any versions previously issued by the laboratory.

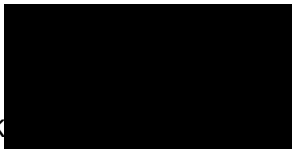
The analysis was completed by: 23-Oct-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

- Table 1 Main Analysis Results (Pages 2 to 6)
- Table of Asbestos Screening Results (Page 7)
- Analytical and Deviating Sample Overview (Pages 8 to 9)
- Table of Method Descriptions (Page 10)
- Table of Report Notes (Page 11)
- Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK
Becky Batham




Energy & Waste Services

Date of Issue: 23-Oct-2018

Tests marked 'N' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.


SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.


LAB ID Number	Client Sample Description	Sample Date	Units :	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
			Method Codes :	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	CALC_CR3	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA
			Method Reporting Limits :	10	10	20	20	10	10	30	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
			Benzene	Ethyl Benzene	m/p Xylenes	MTBE	o Xylene	Toluene	Xylenes	Chromium (III)	GRO	GRO (>C5 - C6)	GRO (>C7 - C8)	GRO (>C8 - C10)	GRO (C5-C6 Aliphatic)	GRO (C6-C7 Aliphatic)	GRO (C6-C7)	GRO (C7-C8 Aliphatic)		
1926523	TP/17/13 ES 5 0.50		< 10.0	< 10.0	< 20.0	< 20.0	< 10.0	< 10.0	< 30.0	<21.6	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200		
1926524	TP/17/17 ES 2 0.20		< 10.0	< 10.0	< 20.0	< 20.0	< 10.0	< 10.0	< 30.0	<29.8	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200		
1926525	TP-17-22 ES 1 0.10	13-Sep-18	< 10.0	< 10.0	< 20.0	< 20.0	< 10.0	< 10.0	< 30.0	<24.0	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200		
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name		SOCOTEC UK Doncaster							Sample Analysis								
			Contact		Neil Cooke							A8013-18 A1 In Morpeth To Felton & Alnwick								
			A8013-18 A1 In Morpeth To Felton & Alnwick		Date Printed			23-Oct-2018												
					Report Number			EFS/191142												
Table Number					1															


Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Codes :	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS
Method Reporting Limits :	0.2	20	0.5	0.1	0.3	0.1	0.5	0.5	0.5	0.5	1	0.1	0.5	0.5	0.5	0.5	0.6	3			
UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes			

LAB ID Number	Client Sample Description	Sample Date	GRO (C8-C10 Aliphatic)	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)
1926523	TP/17/13 ES 5 0.50		< 0.200	218	2.4	0.2	4.8	0.1	21.6	15.1	9.7	1742	<0.1	<0.5	27.1	<0.5	21.7	32.3
1926524	TP/17/17 ES 2 0.20		< 0.200	1090	1.5	0.3	5.3	0.6	29.8	22.8	25.3	333.5	<0.1	<0.5	23.9	0.7	39.8	50.3
1926525	TP-17-22 ES 1 0.10	13-Sep-18	< 0.200	383	1	0.3	5.4	0.23	24	22.1	19.8	540.1	<0.1	0.5	23.4	<0.5	46.5	51.3

 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>	Client Name	SOCOTEC UK Doncaster	Sample Analysis			
	Contact	Neil Cooke				
	A8013-18 A1 In Morpeth To Felton & Alnwick		Date Printed	23-Oct-2018		
			Report Number	EFS/191142		
Table Number			1			

LAB ID Number	Client Sample Description	Sample Date	Units : mg/kg																
			Method Codes : ICP SOIL ICP SOIL ICP SOIL KONECR PAHMSUS PAHMSUS PAHMSUS PAHMSUS PAHMSUS PAHMSUS PAHMSUS PAHMSUS PAHMSUS PAHMSUS PAHMSUS PAHMSUS																
			Method Reporting Limits : 0.5 0.1 36 0.1 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08																
			UKAS Accredited : Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes																
			Barium.	Beryllium.	Iron	Chromium vi.	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(ah)anthracene	Fluoranthene	Fluorene	
1926523	TP/17/13 ES 5 0.50		256	0.859	43000	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	
1926524	TP/17/17 ES 2 0.20		297	1.17	23000	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	
1926525	TP-17-22 ES 1 0.10	13-Sep-18	144	0.708	30700	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.10	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name	SOCOTEC UK Doncaster								Sample Analysis							
			Contact	Neil Cooke								Date Printed	23-Oct-2018						
<p>A8013-18 A1 In Morpeth To Felton & Alnwick</p>												Report Number	EFS/191142						
												Table Number	1						

		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
		Method Codes :	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PHSOIL	SFAPI	SFAPI	SFAPI	Sub002	TMSS	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	
		Method Reporting Limits :	0.08	0.08	0.08	0.08	1.28		0.5	0.5	0.5		0.1	4	4	4	8.75	4	
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
LAB ID Number	Client Sample Description	Sample Date	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH (Sum of USEPA 16)	pH units (AR)	Cyanide(Free) (AR)	Cyanide(Total) (AR)	Phenol Index.(AR)	Asbestos ID and Quant (1 & 2)	Tot.Moisture @ 105C	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	
1926523	TP/17/13 ES 5 0.50		< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	7.4	<0.5	<0.5	<0.5	NADIS	11.9	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	
1926524	TP/17/17 ES 2 0.20		< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	7	<0.5	0.6	<0.5	NADIS	28.5	< 4.02	< 4.02	< 4.02	11.6	< 4.02	
1926525	TP-17-22 ES 1 0.10	13-Sep-18	< 0.08	< 0.08	< 0.08	< 0.08	< 1.3	7	<0.5	<0.5	<0.5	NADIS	15.1	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name	SOCOTEC UK Doncaster								Sample Analysis							
			Contact	Neil Cooke								Date Printed	23-Oct-2018						
			A8013-18 A1 In Morpeth To Felton & Alnwick									Report Number	EFS/191142						
												Table Number	1						

		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% M/M						
		Method Codes :	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	WSLM59						
		Method Reporting Limits :	20	4	4	4	8.75	4	20	0.02							
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes							
LAB ID Number	Client Sample Description	Sample Date	TPH All Band >C8-C10	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	Total Organic Carbon							
1926523	TP/17/13 ES 5 0.50		< 20.0	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	0.72							
1926524	TP/17/17 ES 2 0.20		< 20.1	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	4.10							
1926525	TP-17-22 ES 1 0.10	13-Sep-18	< 20.0	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	1.15							
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>		Client Name SOCOTEC UK Doncaster Contact Neil Cooke	A8013-18 A1 In Morpeth To Felton & Alnwick								Sample Analysis Date Printed 23-Oct-2018 Report Number EFS/191142 Table Number 1						

ASBESTOS ANALYSIS RESULTS

SOCOTEC Asbestos Limited Certificate of Analysis for Asbestos in Soils, Sediments and Aggregates



Detection limit of Method SCI-ASB-020 is 0.001%

Sampling has been carried out by a third party



Client:	SOCOTEC Environmental Chemistry	Page 1 of 1
Address:	Etwall House, Bretby Business Park, Ashby Road, Burton upon Trent	Report No: ANO-0503-19618
For the attention of:	SOCOTEC UK Doncaster	Report Date: 22/10/2018
Site Address:	A8013-18 A1 In Morpeth To Felton & Alnwick	Project Number: S191142

Sample Number	Sample Date	Sample Location & Matrix	Test Date	Total Sample Dry Weight (g)	Weight of <10mm Fraction (g)	Asbestos(g) in >10mm	Asbestos(g) in < 10mm	% Asbestos by weight of Total Dried Sample	Moisture Content	Asbestos Fibre Types Identified
CL/1926523		TP/17/13 0.50 Soils	20/10/2018	1418.6	1353.7	0.0000	0.0000			NADIS
CL/1926524		TP/17/17 0.20 Soils	20/10/2018	573.2	563.3	0.0000	0.0000			NADIS
CL/1926525	13/09/18	TP-17-22 0.10 Soils	22/10/2018	1191.1	1007.5	0.0000	0.0000			NADIS

Keys	NAACR = Not Analysed at Clients Request	NAIIS = No Asbestos Identified in Sample (Identification Only)	Name: Tom Pratt	Authorised Signatory:
	* visible to naked eye	NADIS = No Asbestos Detected in Sample (ID & Quant Only)	Position: Lab Coordinator	

The sample analysis for the above results was carried out using the procedures detailed in SOCOTEC Asbestos Limited in house method (SCI-ASB-020) based on EA document Quantification of asbestos in soil and associated materials - Draft 2017. Fibre identification was carried out using SOCOTEC Asbestos Limited in house method of transmitted/polarised light microscopy and centre stop dispersion staining (SCI-ASB-007), based on HSE's HSG 248. The analysis of the < 10mm fraction for asbestos content only includes ACMs and fibres and does not discriminate non-asbestos fibres. All fibres are assumed, unless specified, to be amphiboles. All tests were carried out at a SOCOTEC Asbestos Ltd laboratory, UKAS Testing Number 1089. Recommended sample weight is 1kg-2kg, samples less than 1kg are classified as deviating samples.

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S191142

Consignment No S78134
Date Logged 10-Oct-2018
In-House Report Due 16-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID																		PHSOIL	PAHMSUS	KONECR					
			BTEXHSA	CALC.CRS	Conserv	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS				ICPSSOIL	ICPSSOIL	ICPSSOIL		
			MTBE (µg/kg)	Chromium (III)	REPORT A	GRO (AA) by HSA GC-FID	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)	Barium.	Beryllium.	Iron	Chromium vi:	PAH (16) by GCMS	pH units (AR)
			✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CL/1926523	TP/17/13 0.50	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1926524	TP/17/17 0.20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CL/1926525	TP-17-22 0.10	13/09/18	E			E		E																	E	E	

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
Analysis Required	
Analysis dependant upon trigger result - Note: due date may be affected if triggered	
No analysis scheduled	
Analysis Subcontracted - Note: due date may vary	

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S191142

Consignment No S78134
Date Logged 10-Oct-2018
In-House Report Due 16-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	SFAP1	Sub002	TMSS	TPHUS1	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/FID (AR/SI)	Total Organic Carbon	WSLMS9	
																					Asbestos ID and Quant (1 & 2)	Phenol Index.(AR)
CL/1926523	TP/17/13 0.50	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	✓
CL/1926524	TP/17/17 0.20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	✓
CL/1926525	TP-17-22 0.10	13/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	✓

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



Report No. EFS/191143 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 10-Oct-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 26-Oct-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Table of Asbestos Screening Results (Page 7)
Analytical and Deviating Sample Overview (Pages 8 to 9)
Table of Method Descriptions (Page 10)
Table of Report Notes (Page 11)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK
Becky Batham




Operations Manager
Energy & Waste Services


Date of Issue: 26-Oct-2018

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.


LAB ID Number	Client Sample Description	Sample Date	Units :	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
			Method Codes :	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	CALC_CR3	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA
			Method Reporting Limits :	10	10	20	20	10	10	30	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
			UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
			Benzene	Ethyl Benzene	m/p Xylenes	MTBE	o Xylene	Toluene	Xylenes	Chromium (III)	GRO	GRO (>C5 - C6)	GRO (>C7 - C8)	GRO (>C8 - C10)	GRO (C5-C6 Aliphatic)	GRO (C6-C7 Aliphatic)	GRO (C6-C7)	GRO (C7-C8 Aliphatic)	
1926526	TP/17/45 ES 2 0.10		< 10.0	< 10.0	< 20.0	< 20.0	< 10.0	< 10.0	< 30.0	<26.3	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	
1926527	TP-17-46 ES 4 0.50	14-Sep-18	< 10.0	< 10.0	< 20.0	< 20.0	< 10.0	< 10.0	< 30.0	<21.0	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name	SOCOTEC UK Doncaster								Sample Analysis							
			Contact	Neil Cooke															
			A8013-18 A1 In Morpeth To Felton & Alnwick								Date Printed	26-Oct-2018							
											Report Number	EFS/191143							
Table Number	1																		


		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Method Codes :	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS
		Method Reporting Limits :	0.2	20	0.5	0.1	0.3	0.1	0.5	0.5	0.5	1	0.1	0.5	0.5	0.5	0.6	3
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	
LAB ID Number	Client Sample Description	Sample Date	GRO (C8-C10 Aliphatic)	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)
1926526	TP/17/45 ES 2 0.10		< 0.200	497	1.6	0.4	7.5	0.22	26.3	20.9	24.5	963.2	0.11	0.5	18.1	<0.5	36.7	55.9
1926527	TP-17-46 ES 4 0.50	14-Sep-18	< 0.200	267	1.3	0.2	4.7	<0.1	21	14.1	18	421.5	<0.1	0.6	15.2	<0.5	26.2	39.4
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name		SOCOTEC UK Doncaster							Sample Analysis						
			Contact		Neil Cooke													
<p>A8013-18 A1 In Morpeth To Felton & Alnwick</p>			Date Printed		26-Oct-2018						Report Number		EFS/191143					
			Table Number		1													



Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Codes :	ICPSOIL	ICPSOIL	ICPSOIL	KONECR	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS
Method Reporting Limits :	0.5	0.1	36	0.1	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
UKAS Accredited :	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

LAB ID Number	Client Sample Description	Sample Date	Barium	Beryllium	Iron	Chromium vi:	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene
1926526	TP/17/45 ES 2 0.10		98.3	0.79	34800	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
1926527	TP-17-46 ES 4 0.50	14-Sep-18	56.3	0.613	26300	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08

 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>	Client Name	SOCOTEC UK Doncaster	Sample Analysis	
	Contact	Neil Cooke		
	A8013-18 A1 In Morpeth To Felton & Alnwick		Date Printed	26-Oct-2018
			Report Number	EFS/191143
Table Number			1	

Units :		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
Method Codes :		PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PHSOIL	SFAPI	SFAPI	SFAPI	Sub002	TMSS	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI		
Method Reporting Limits :		0.08	0.08	0.08	0.08	1.28		0.5	0.5	0.5		0.1	4	4	4	8.75	4		
UKAS Accredited :		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
LAB ID Number	Client Sample Description	Sample Date	Indeno(123-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH (Sum of USEPA 16)	pH units (AR)	Cyanide(Free) (AR)	Cyanide(Total) (AR)	Phenol Index (AR)	Asbestos ID and Quant (1 & 2)	Tot.Moisture @ 105C	TPH All Band >C10-C12	TPH All Band >C12-C16	TPH All Band >C16-C21	TPH All Band >C21-C35	TPH All Band >C8-C10	
1926526	TP/17/45 ES 2 0.10		< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	8.3	<0.5	1.9	<0.5	NADIS	17.5	< 4.02	< 4.02	< 4.02	12.5	< 4.02	
1926527	TP-17-46 ES 4 0.50	14-Sep-18	< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	8.7	<0.5	0.6	<0.5	NADIS	16.5	< 4.02	< 4.02	< 4.02	< 8.80	< 4.02	
 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			Client Name		SOCOTEC UK Doncaster							Sample Analysis							
			Contact		Neil Cooke														
			A8013-18 A1 In Morpeth To Felton & Alnwick										Date Printed		26-Oct-2018				
													Report Number		EFS/191143				
Table Number		1																	

		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% M/M						
		Method Codes :	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	WSLM59						
		Method Reporting Limits :	20	4	4	4	8.75	4	20	0.02							
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes							
LAB ID Number	Client Sample Description	Sample Date	TPH All Band >C8-C10	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	Total Organic Carbon							
1926526	TP/17/45 ES 2 0.10		< 20.1	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	2.00							
1926527	TP-17-46 ES 4 0.50	14-Sep-18	< 20.1	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	1.09							
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name SOCOTEC UK Doncaster Contact Neil Cooke							Sample Analysis							
			A8013-18 A1 In Morpeth To Felton & Alnwick							Date Printed 26-Oct-2018							
										Report Number EFS/191143							
										Table Number 1							

ASBESTOS ANALYSIS RESULTS								Detection limit of Method SCI-ASB-020 is 0.001%		
SOCOTEC Asbestos Limited Certificate of Analysis for Asbestos in Soils, Sediments and Aggregates								Sampling has been carried out by a third party		
Client:			SOCOTEC Environmental Chemistry			Page 1 of 1				
Address:			Etwall House, Bretby Business Park, Ashby Road, Burton upon Trent			Report No:		ANO-0503-19617		
For the attention of:			SOCOTEC UK Doncaster			Report Date:		19/10/2018		
Site Address:			A8013-18 A1 In Morpeth To Felton & Alnwick			Project Number:		S191143		
Sample Number	Sample Date	Sample Location & Matrix	Test Date	Total Sample Dry Weight (g)	Weight of <10mm Fraction (g)	Asbestos(g) in >10mm	Asbestos(g) in < 10mm	% Asbestos by weight of Total Dried Sample	Moisture Content	Asbestos Fibre Types Identified
CL/1926526		TP/17/45 0.10 Soils	19/10/2018	972.5	964.8	0.0000	0.0000			NADIS
CL/1926527	14/09/18	TP-17-46 0.50 Soils	19/10/2018	1302.7	1251.1	0.0000	0.0000			NADIS
Keys	NAACR = Not Analysed at Clients Request			NAIIS = No Asbestos Identified in Sample (Identification Only)			Name:	Rachel Howell		Authorised Signatory:
	* visible to naked eye			NADIS = No Asbestos Detected in Sample (ID & Quant Only)			Position:	Lab Technician		
<p>The sample analysis for the above results was carried out using the procedures detailed in SOCOTEC Asbestos Limited in house method (SCI-ASB-020) based on EA document Quantification of asbestos in soil and associated materials - Draft 2017. Fibre identification was carried out using SOCOTEC Asbestos Limited in house method of transmitted/polarised light microscopy and centre stop dispersion staining (SCI-ASB-007), based on HSE's HSG 248. The analysis of the < 10mm fraction for asbestos content only includes ACMs and fibres and does not discriminate non-asbestos fibres. All fibres are assumed, unless specified, to be amphiboles. All tests were carried out at a SOCOTEC Asbestos Ltd laboratory, Ashbourne House, Bretby Business Park, Ashby Road, Burton upon Trent, DE15 0YZ. UKAS Testing Number 1089. Recommended sample weight is 1kg-2kg, samples less than 1kg are classified as deviating samples.</p>										

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S191143

Consignment No S78236
Date Logged 10-Oct-2018
In-House Report Due 16-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	BTEXHSA	CALC.CRS	CustServ	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPSSOIL	KONECR	PAHMSUS	PHSOIL											
			MTBE (µg/kg)	Chromium (III)	REPORT A	GRO (AA) by HSA GC-FID	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)					Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)
			✓			✓	✓	✓	✓	✓		✓	✓											
CL/1926526	TP/17/45 0.10	D	D	D	D	D	D	D	D	D	D	D	D											
CL/1926527	TP-17-46 0.50	14/09/18	E			E		E				E	E											

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S191143

Consignment No S78236
Date Logged 10-Oct-2018
In-House Report Due 16-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	SFAP1	Sub002	TMSS	TPHUS1	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/FID (AR/SI)	Total Organic Carbon	WSLMS9	
																					Asbestos ID and Quant (1 & 2)	Phenol Index.(AR)
CL/1926526	TP/17/45 0.10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	✓
CL/1926527	TP-17-46 0.50	14/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	✓

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



1252

Report No. EFS/191212 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 11-Oct-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 26-Oct-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Subcontracted Analysis Reports (Pages 7 to 8)
The accreditation status of subcontracted analysis is displayed on the appended subcontracted analysis reports.
Analytical and Deviating Sample Overview (Pages 9 to 10)
Table of Method Descriptions (Page 11)
Table of Report Notes (Page 12)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Li
Becky Batham



Operations Manager
Energy & Waste Services

Date of Issue: 26-Oct-2018

Tests marked '^' have been subcontracted to another laboratory.


Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.


SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Units :	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	$\mu\text{g}/\text{kg}$	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Codes :	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	CALC_CR3	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA
Method Reporting Limits :	10	10	20	20	10	10	30	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

LAB ID Number	Client Sample Description	Sample Date	Benzene	Ethyl Benzene	m/p Xylenes	MTBE	o Xylene	Toluene	Xylenes	Chromium (III)	GRO	GRO (>C5 - C6)	GRO (>C7 - C8)	GRO (>C8 - C10)	GRO (C5-C6 Aliphatic)	GRO (C6-C7 Aliphatic)	GRO (C6-C7)	GRO (C7-C8 Aliphatic)	
1926733	TP17/24 ES 2 0.40	17-Sep-18	< 10.0	14	42	< 20.0	< 10.0	< 10.0	42	<20.1	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200

 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>	Client Name	SOCOTEC UK Doncaster		Sample Analysis		
	Contact	Neil Cooke				
	A8013-18 A1 In Morpeth To Felton & Alnwick				Date Printed	26-Oct-2018
					Report Number	EFS/191212
Table Number					1	


LAB ID Number	Client Sample Description	Sample Date	Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
			Method Codes :	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS
			Method Reporting Limits :	0.2	20	0.5	0.1	0.3	0.1	0.5	0.5	0.5	1	0.1	0.5	0.5	0.5	0.5	0.6	3
			UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	
			GRO (C8-C10 Aliphatic)	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)		
1926733	TP17/24 ES 2 0.40	17-Sep-18	< 0.200	282	1.1	<0.1	5.5	0.2	20.1	11.4	15	1890	<0.1	<0.5	22.7	<0.5	29.9	43.1		
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name	SOCOTEC UK Doncaster								Sample Analysis								
			Contact	Neil Cooke																
			A8013-18 A1 In Morpeth To Felton & Alnwick										Date Printed	26-Oct-2018						
													Report Number	EFS/191212						
Table Number	1																			

		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		Method Codes :	ICPSOIL	ICPSOIL	ICPSOIL	KONECR	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS
		Method Reporting Limits :	0.5	0.1	36	0.1	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		UKAS Accredited :	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LAB ID Number	Client Sample Description	Sample Date	Barium	Beryllium	Iron	Chromium vi	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(ah)anthracene	Fluoranthene	Fluorene
			CL/	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1926733	TP17/24 ES 2 0.40	17-Sep-18	190	0.728	29100	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	> 0.08	< 0.08	< 0.08	> 0.08	< 0.08
 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			Client Name		SOCOTEC UK Doncaster									Sample Analysis				
			Contact		Neil Cooke													
			A8013-18 A1 In Morpeth To Felton & Alnwick											Date Printed		26-Oct-2018		
														Report Number		EFS/191212		
Table Number		1																

Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Codes :	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PHSOIL	SFAPI	SFAPI	SFAPI	Sub020	TMSS	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI
Method Reporting Limits :	0.08	0.08	0.08	0.08	1.28		0.5	0.5	0.5	0.1	0.1	4	4	4	8.75	4
UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

LAB ID Number	Client Sample Description	Sample Date	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH (Sum of USEPA 16)	pH units (AR)	Cyanide(Free) (AR)	Cyanide(Total) (AR)	Phenol Index (AR)	Asbestos ID and Quant (1 & 2)	Tot.Moisture @ 105C	TPH All Band >C10-C12	TPH All Band >C12-C16	TPH All Band >C16-C21	TPH All Band >C21-C35	TPH All Band >C8-C10	
1926733	TP17/24 ES 2 0.40	17-Sep-18	< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	7.8	<0.5	<0.5	<0.5	NADIS	10.5	< 4.16	< 4.16	7.56	> 9.11	> 4.16	

 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>	Client Name	SOCOTEC UK Doncaster	Sample Analysis	
	Contact	Neil Cooke		
	A8013-18 A1 In Morpeth To Felton & Alnwick			Date Printed
			Report Number	EFS/191212
			Table Number	1

		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% M/M							
		Method Codes :	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	WSLM59							
		Method Reporting Limits :	20	4	4	4	8.75	4	20	0.02								
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
LAB ID Number	Client Sample Description	Sample Date	TPH All Band >C8-C10	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C10	Total Organic Carbon								
1926733	TP17/24 ES 2 0.40	17-Sep-18	< 20.8	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	0.69								
 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client Name	SOCOTEC UK Doncaster								Sample Analysis							
		Contact	Neil Cooke															
		A8013-18 A1 In Morpeth To Felton & Alnwick										Date Printed	26-Oct-2018					
												Report Number	EFS/191212					
										Table Number	1							

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S01629-5

DATE OF ISSUE: 24.10.18

DATE SAMPLES RECEIVED: 15.10.18

DATE SAMPLES ANALYSED: 24.10.18

SAMPLE DESCRIPTION: One soil/loose aggregate sample weighing approximately 1.3kg.

ANALYSIS REQUESTED: Qualitative and quantitative analysis of a soil/loose aggregate sample for mass determination of asbestos.

METHODS:

Qualitative - The sample was analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative - The analysis was carried out using our documented in-house method based on HSE Contract Research Report No. 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies *et al*, 1996) and HSG 248. Our method includes initial examination of the entire sample, detailed analysis of a representative sub-sample and quantification by hand picking/weighing and/or fibre counting/sizing as appropriate.

RESULTS:

Initial Screening

No asbestos was detected in the soil sample by stereo-binocular and polarised light microscopy.

A summary of the result is given in Table 1.



CONTRACT NO: S01629-5
DATE OF ISSUE: 24.10.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S191212

IOM sample number	Client sample number	ACM type detected	PLM result
S61193	S1926733 TP17/24 0.40	-	No Asbestos Detected

Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.



AUTHORISED BY:
D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S191212

Consignment No S78556
Date Logged 11-Oct-2018
In-House Report Due 17-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	BTEXHSA	CALC.CRS	CustServ	GROHSA	ICPACIDS	ICPBOR	ICPMSS											ICPSOIL	KONECR	PAHMSUS	PHSOIL				
		Sampled	MTBE (µg/kg)	Chromium (III)	REPORT A	GRO (AA) by HSA GC-FID	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)	Barium.	Beryllium.	Iron	Chromium vi:	PAH (16) by GCMS	pH units (AR)
CL/1926733	TP17/24 0.40	17/09/18	F			F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
Analysis Required	
Analysis dependant upon trigger result - Note: due date may be affected if triggered	
No analysis scheduled	
Analysis Subcontracted - Note: due date may vary	

Where individual results are flagged see report notes for status.

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S191212

Consignment No S78556
Date Logged 11-Oct-2018
In-House Report Due 17-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	SFAPL	Sub020	TMSS	TPHUSI	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/FID (AR/SI)	Total Organic Carbon	WSLMS9	
																						Asbestos ID and Quant (1 & 2)
CL/1926733	TP17/24 0.40	17/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E Sample processing did not commence within the appropriate holding time
- F Sample processing did not commence within the appropriate handling time

Requested Analysis Key

- Analysis Required
- Analysis dependant upon trigger result - **Note: due date may be affected if triggered**
- No analysis scheduled
- ^ Analysis Subcontracted - **Note: due date may vary**

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



1252

Report No. EFS/191729 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & Alnwick

The 5 samples described in this report were registered for analysis by SOCOTEC UK Limited on 23-Oct-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 02-Nov-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Subcontracted Analysis Reports (Pages 7 to 8)
The accreditation status of subcontracted analysis is displayed on the appended subcontracted analysis reports.
Analytical and Deviating Sample Overview (Pages 9 to 10)
Table of Additional Report Notes (Page 11)
Table of Method Descriptions (Page 12)
Table of Report Notes (Page 13)
Table of Sample Descriptions (Appendix A Page 1 of 1)


On behalf of
SOCOTEC UK Limited
Becky Batham
Operations Manager
Energy & Waste Services


Date of Issue: 02-Nov-2018


Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

		Units :	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
		Method Codes :	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	CALC_CR3	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA
		Method Reporting Limits :	10	10	20	20	10	10	30	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LAB ID Number	Client Sample Description	Sample Date	Benzene	Ethyl Benzene	m/p Xylenes	MTBE	o Xylene	Toluene	Xylenes	Chromium (III)	GRO	GRO (>C5 - C6)	GRO (>C7 - C8)	GRO (>C8 - C10)	GRO (C5-C6 Aliphatic)	GRO (C6-C7 Aliphatic)	GRO (C6-C7)	GRO (C7-C8 Aliphatic)	
1928691	TP/17/01 ES 2 0.20	27-Sep-18	< 10.0	< 10.0	< 20.0	< 20.0*	< 10.0	< 10.0	< 30.0	<20.2	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	
1928692	TP/17/08 ES 4 0.40	26-Sep-18	< 10.0	< 10.0	< 20.0	< 20.0*	< 10.0	< 10.0	< 30.0	<28.0	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	
1928693	TP/17/09A ES 2 0.20	26-Sep-18	< 10.0	< 10.0	< 20.0	< 20.0*	< 10.0	< 10.0	< 30.0	<30.1	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	
1928694	TP/17/38 ES 5 0.50	25-Sep-18	< 10.0	< 10.0	< 20.0	< 20.0*	< 10.0	< 10.0	< 30.0	<24.2	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	
1928695	TP/17/39 ES 4 0.60	25-Sep-18	< 10.0	< 10.0	< 20.0	< 20.0*	< 10.0	< 10.0	< 30.0	20.6	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name SOCOTEC UK Doncaster Contact Neil Cooke		Sample Analysis											Date Printed 02-Nov-2018 Report Number EFS/191729 Table Number 1			
			A8013-18 A1 In Morpeth To Felton & Alnwick																

		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
		Method Codes :	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	
		Method Reporting Limits :	0.2	20	0.5	0.1	0.3	0.1	0.5	0.5	0.5	1	0.1	0.5	0.5	0.5	0.6	3	
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes		
LAB ID Number	Client Sample Description	Sample Date	GRO (C8-C10 Aliphatic)	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)	
1928691	TP/17/01 ES 2 0.20	27-Sep-18	< 0.200	363	1.2	0.2	3.7	0.19	20.2	29	16.8	522.1	<0.1	<0.5	43	<0.5	22.3	62.2	
1928692	TP/17/08 ES 4 0.40	26-Sep-18	< 0.200	91	0.9	0.3	10.9	0.11	28	26.3	12.5	264.9	<0.1	<0.5	34.3	<0.5	31.1	53	
1928693	TP/17/09A ES 2 0.20	26-Sep-18	< 0.200	576	1.2	0.4	7.4	0.26	30.1	19	26.8	978.6	<0.1	<0.5	23.5	<0.5	44.1	65.8	
1928694	TP/17/38 ES 5 0.50	25-Sep-18	< 0.200	278	0.8	0.3	9	0.37	24.2	34.8	17.8	1910	<0.1	0.7	32	<0.5	35.7	74	
1928695	TP/17/39 ES 4 0.60	25-Sep-18	< 0.200	232	0.9	<0.1	5.7	0.11	20.8	19.4	16	1180	<0.1	0.5	18.2	<0.5	29	50.5	
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>		Client Name	SOCOTEC UK Doncaster										Sample Analysis						
		Contact	Neil Cooke																
		A8013-18 A1 In Morpeth To Felton & Alnwick												Date Printed	02-Nov-2018				
														Report Number	EFS/191729				
														Table Number	1				

		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
		Method Codes :	ICPSOIL	ICPSOIL	ICPSOIL	KONECR	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	
		Method Reporting Limits :	0.5	0.1	36	0.1	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	
		UKAS Accredited :	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
LAB ID Number	Client Sample Description	Sample Date	Barium	Beryllium	Iron	Chromium vi:	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene
1928691	TP/17/01 ES 2 0.20	27-Sep-18	130	0.65	25000	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
1928692	TP/17/08 ES 4 0.40	26-Sep-18	147	0.95	37700	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
1928693	TP/17/09A ES 2 0.20	26-Sep-18	187	1.01	34000	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
1928694	TP/17/38 ES 5 0.50	25-Sep-18	124	1.13	57100	<0.1	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
1928695	TP/17/39 ES 4 0.60	25-Sep-18	63	0.55	28000	0.2	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>			Client Name SOCOTEC UK Doncaster Contact Neil Cooke							Sample Analysis								
A8013-18 A1 In Morpeth To Felton & Alnwick										Date Printed 02-Nov-2018								
										Report Number EFS/191729								
										Table Number 1								

Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	mg/kg	mg/kg	mg/kg		%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Codes :	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PAHMSUS	PHSOIL	SFAPI	SFAPI	SFAPI	Sub020	TMSS	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI
Method Reporting Limits :	0.08	0.08	0.08	0.08	1.28		0.5	0.5	0.5		0.1	4	4	4	8.75	4
UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

LAB ID Number	Client Sample Description	Sample Date	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH (Sum of USEPA 16)	pH units (AR)	Cyanide(Free) (AR)	Cyanide(Total) (AR)	Phenol Index (AR)	Asbestos ID (Stage 1)	Tot.Moisture @ 105C	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C38-C10	
1928691	TP/17/01 ES 2 0.20	27-Sep-18	< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	7.4	<0.5	<0.5	<0.5	NADIS	13.2	< 4.08	< 4.08	4.38	10.4	< 4.08	
1928692	TP/17/08 ES 4 0.40	26-Sep-18	< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	7.6	<0.5	<0.5	<0.5	NADIS	15.5	< 4.04	< 4.04	< 4.04	< 8.85	< 4.04	
1928693	TP/17/09A ES 2 0.20	26-Sep-18	< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	6.8	<0.5	<0.5	<0.5	NADIS	21.0	< 4.08	< 4.08	< 4.08	< 8.94	< 4.08	
1928694	TP/17/38 ES 5 0.50	25-Sep-18	< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	8.1	<0.5	<0.5	<0.5	NADIS	14.7	< 4.08	< 4.08	< 4.08	< 8.94	< 4.08	
1928695	TP/17/39 ES 4 0.60	25-Sep-18	< 0.08	< 0.08	< 0.08	< 0.08	< 1.28	8	<0.5	<0.5	<0.5	NADIS	9.0	< 4.02	< 4.02	< 4.02	< 8.80	< 4.02	

 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422	Client Name	SOCOTEC UK Doncaster	Sample Analysis		
	Contact	Neil Cooke			
	A8013-18 A1 In Morpeth To Felton & Alnwick			Date Printed	02-Nov-2018
				Report Number	EFS/191729
			Table Number	1	

Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% M/M								
Method Codes :	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	TPHUSSI	WSLM59								
Method Reporting Limits :	20	4	4	4	8.75	4	20	0.02										
UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes									

LAB ID Number	Client Sample Description	Sample Date	TPH Aii Band >C8-C10	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	Total Organic Carbon								
1928691	TP/17/01 ES 2 0.20	27-Sep-18	22.1	< 4.00	4.12	< 4.00	9.71	< 4.00	< 20.0	1.29								
1928692	TP/17/08 ES 4 0.40	26-Sep-18	< 20.2	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	0.83								
1928693	TP/17/09A ES 2 0.20	26-Sep-18	< 20.4	< 4.00	< 4.00	< 4.00	9.38	< 4.00	< 20.0	2.67								
1928694	TP/17/38 ES 5 0.50	25-Sep-18	< 20.4	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	0.93								
1928695	TP/17/39 ES 4 0.60	25-Sep-18	21.6	< 4.00	< 4.00	< 4.00	< 8.76	< 4.00	< 20.0	0.63								



Bretby Business Park, Ashby Road
Burton-on-Trent, Staffordshire, DE15 0YZ

Tel +44 (0) 1283 554400
Fax +44 (0) 1283 554422

Client Name SOCOTEC UK Doncaster
Contact Neil Cooke

A8013-18 A1 In Morpeth To Felton & Alnwick

Sample Analysis	
Date Printed	02-Nov-2018
Report Number	EFS/191729
Table Number	1

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S01856-2

DATE OF ISSUE: 01.11.18

DATE SAMPLES RECEIVED: 25.10.18

DATE SAMPLES ANALYSED: 01.11.18

SAMPLE DESCRIPTION: Five soil/loose aggregate samples.

ANALYSIS REQUESTED: Qualitative analysis of samples for determination of presence/type of asbestos.

METHODS:

Our method involves initial examination of the samples followed by detailed analysis of representative sub-samples. The sub-samples are analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

RESULTS:

Initial Screening

No asbestos was detected in any of the soil samples by stereo-binocular and polarised light microscopy.

A summary of the results is given in Table 1.



CONTRACT NO: S01856-2
DATE OF ISSUE: 01.11.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S191729

IOM sample number	Client sample number	ACM type detected	PLM result
S61601	S1928691 TP/17/01 0.20	-	No Asbestos Detected
S61602	S1928692 TP/17/08 0.40	-	No Asbestos Detected
S61603	S1928693 TP/17/09A 0.20	-	No Asbestos Detected
S61604	S1928694 TP/17/38 0.50	-	No Asbestos Detected
S61605	S1928695 TP/17/39 0.60	-	No Asbestos Detected

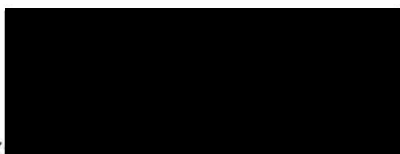
Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.

AUTHORISED BY



D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & Alnwick
Report No S191729

Consignment No S78963
Date Logged 23-Oct-2018
In-House Report Due 26-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	SFAP1	Sub020	TMSS	TPHUS1	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/FID (AR/SI)	Total Organic Carbon	WSLMS9	
																						Sampled
			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CL/1928691	TP/17/01 0.20	27/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
CL/1928692	TP/17/08 0.40	26/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
CL/1928693	TP/17/09A 0.20	26/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
CL/1928694	TP/17/38 0.50	25/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
CL/1928695	TP/17/39 0.60	25/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
 	Analysis Required
 	Analysis dependant upon trigger result - Note: due date may be affected if triggered
 	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Additional Report Notes

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
BTEXHSA	CL1928691 TO CL1928695	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. However the remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (MTBE) . These circumstances should be taken into consideration when utilising the data.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



1252

Report No. EFS/191730 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 In Morpeth To Felton & ALnwick


The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 23-Oct-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 02-Nov-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Subcontracted Analysis Reports (Pages 7 to 8)
The accreditation status of subcontracted analysis is displayed on the appended subcontracted analysis reports.
Analytical and Deviating Sample Overview (Pages 9 to 10)
Table of Method Descriptions (Page 11)
Table of Report Notes (Page 12)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited 
Becky Batham Operations Manager
Energy & Waste Services

Date of Issue: 02-Nov-2018

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY: SOCOTEC UK Ltd
Environmental Chemistry
PO Box 100
Burton upon Trent
Staffordshire
DE15 0XD

CONTRACT NO: S01856-3

DATE OF ISSUE: 01.11.18

DATE SAMPLES RECEIVED: 25.10.18

DATE SAMPLES ANALYSED: 01.11.18

SAMPLE DESCRIPTION: Two soil/loose aggregate samples.

ANALYSIS REQUESTED: Qualitative analysis of samples for determination of presence/type of asbestos.

METHODS:

Our method involves initial examination of the samples followed by detailed analysis of representative sub-samples. The sub-samples are analysed qualitatively for asbestos by polarised light and dispersion staining as described by the Health and Safety Executive in HSG 248.

RESULTS:

Initial Screening

No asbestos was detected in either of the soil samples by stereo-binocular and polarised light microscopy.

A summary of the results is given in Table 1.



CONTRACT NO: S01856-3
DATE OF ISSUE: 01.11.18

RESULTS: (cont.)

Table 1: Qualitative Results

SOCOTEC Job I.D: S191730

IOM sample number	Client sample number	ACM type detected	PLM result
S61606	S1928696 BH/17/12 0.60	-	No Asbestos Detected
S61607	S1928697 TP/17/14 0.20	-	No Asbestos Detected

Our detection limit for this method is 0.001%.

COMMENTS:

IOM Consulting cannot accept responsibility for samples that have been incorrectly collected or despatched by external clients.

Any opinions and interpretations expressed herein are outwith the scope of our UKAS accreditation.

AUTHORISED BY: 

D Third
Scientific Technician

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & ALnwick
Report No S191730

Consignment No S78767
Date Logged 23-Oct-2018
In-House Report Due 26-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	BTEXHSA	CALC.CRS	CustServ	GROHSA	ICPACIDS	ICPBOR	ICPMSS	ICPSSOIL	KONECR	PAHMSUS	PHSOIL											
			MTBE (µg/kg)	Chromium (III)	REPORT A	GRO (AA) by HSA GC-FID	SO4-- (acid sol)	Boron (H2O Soluble)	Antimony (MS)		Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Manganese (MS)	Mercury (MS)	Molybdenum (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)	Barium.	Beryllium.
			✓			✓	✓	✓	✓	✓	✓	✓	✓											
CL/1928696	BH/17/12 0.60	27/09/18	F			F						F	F											
CL/1928697	TP/17/14 0.20	27/09/18	F			F						F	F											

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
 	Analysis Required
 	Analysis dependant upon trigger result - Note: due date may be affected if triggered
 	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 In Morpeth To Felton & ALnwick
Report No S191730

Consignment No S78767
Date Logged 23-Oct-2018
In-House Report Due 26-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	SFAP1	Sub020	TMSS	TPHUS1	TPH AII Band >C10-C12	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GC/FID (AR/SI)	Total Organic Carbon	WSLMS9	
																					Sampled	Phenol Index.(AR)
CL/1928696	BH/17/12 0.60	27/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	✓
CL/1928697	TP/17/14 0.20	27/09/18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	✓

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried @ < 35°C	Determination of Total Sulphate in soil samples by Hydrochloric Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried @ < 35°C	Determination of Boron in soil samples by hot water extraction followed by ICPOES detection
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SubCon*	*	Contact Laboratory for details of the methodology used by the sub-contractor.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



Report No. EXR/274297 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 Alnwick to Ellingham

The 6 samples described in this report were registered for analysis by SOCOTEC UK Limited on 28-Nov-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 20-Dec-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:


Table 1 Main Analysis Results (Pages 2 to 6)
Analytical and Deviating Sample Overview (Pages 7 to 9)
Table of Additional Report Notes (Page 10)
Table of Method Descriptions (Page 11)
Table of Report Notes (Page 12)
Table of Sample Descriptions (Appendix A Page 1 of 1)


On behalf of
SOCOTEC UK Limited
Becky Batham
Operations Manager
Energy & Waste Services

Date of Issue: 20-Dec-2018

Tests marked '^' have been subcontracted to another laboratory.
Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.
SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

LAB ID Number	EX/	Client Sample Description	Sample Date	Units :													mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l									
				Method Codes :																					Calc_CR3	CALC_NH4	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA
				µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l																	
				BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA																	
Method Reporting Limits :													0.003	0.01	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1										
UKAS Accredited :													Yes	Yes	No	No	No	No	No	No	No	No	No	No	No								
				Benzene	Ethyl Benzene	m/p Xylenes	MTBE	o Xylene	Toluene	Xylenes	Chromium (III)	Ammoniacal Nitrogen as NH4	GRO >C5->C6	GRO >C5->C6 Aliphatic	GRO >C6->C7	GRO >C6->C7 Aliphatic	GRO >C7->C8	GRO >C7->C8 Aliphatic	GRO >C8->C10														
1935304		A1-BH/17/13 W 231118 5.00	23-Nov-18 10:30	< 5.0	< 5.0	< 10.0*	< 10.0	< 5.0	< 5.0	< 15.0*	>0.106	0.32	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100														
1935305		BH/17/14 W 231118 3.00	23-Nov-18 11:30	< 5.0	< 5.0	< 10.0*	< 10.0	< 5.0	< 5.0	< 15.0*	>0.202	1.3	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100														
1935306		BH/17/02 W 231118 4.00	23-Nov-18 12:30	< 5.0	< 5.0	< 10.0*	< 10.0	< 5.0	< 5.0	< 15.0*	>0.167	0.04	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100														
1935307		BH/17/01 W 231118 4.00	23-Nov-18 12:30	< 5.0	< 5.0	< 10.0*	< 10.0	< 5.0	< 5.0	< 15.0*	>0.194	0.04	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100														
1935308		BH/17/04 W 231118 5.00	23-Nov-18 12:30	< 5.0	< 5.0	< 10.0*	< 10.0	< 5.0	< 5.0	< 15.0*	>0.143	0.26	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100														
1935309		BH/17/03 W 231118 5.00	23-Nov-18 12:30	< 5.0	< 5.0	< 10.0*	< 10.0	< 5.0	< 5.0	< 15.0*	>0.042	0.51	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100														


 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422	Client Name	SOCOTEC UK Doncaster	Sample Analysis		
	Contact	Neil Cooke			
	A8013-18 A1 Alnwick to Ellingham			Date Printed	20-Dec-2018
				Report Number	EXR/274297
Table Number				1	

LAB ID Number	EX/	Client Sample Description	Sample Date	Units :															
				Method Codes :															
				Method Reporting Limits :															
				UKAS Accredited :															
				mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		
				GROHSA	GROHSA	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSWT	ICPWATVAR	ICPWATVAR		
				0.1	0.1	0.001	0.001	0.001	0.001	0.0001	0.001	0.001	0.001	0.002	0.001	0.01	0.01		
				No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes		
				GRO ->C8->C10 Aliphatic	GRO-HSA o	Antimony as Sb (Dissolved)	Arsenic as As (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Mercury as Hg (Dissolved)	Molybdenum as Mo (Dissolved)	Nickel as Ni (Dissolved)	Selenium as Se (Dissolved)	Zinc as Zn (Dissolved)	Chromium as Cr (Total)	Barium as Ba (Dissolved) a	Beryllium as Be (Dissolved) a	Boron as B (Dissolved) a	Cadmium as Cd (Dissolved) a
1935304		A1-BH/17/13 W 231118 5.00	23-Nov-18 10:30	< 0.100*	< 0.100	<0.001	0.001	0.003	0.003	<0.0001	0.001	0.007	<0.001	0.024	0.109	0.21	<0.01	0.03	<0.01
1935305		BH/17/14 W 231118 3.00	23-Nov-18 11:30	< 0.100*	< 0.100	<0.001	0.005	<0.001	<0.001	<0.0001	0.009	0.005	<0.001	<0.002	0.205	0.3	<0.01	0.05	<0.01
1935306		BH/17/02 W 231118 4.00	23-Nov-18 12:30	< 0.100*	< 0.100	<0.001	0.003	<0.001	<0.001	<0.0001	0.005	0.001	<0.001	<0.002	0.17	0.14	<0.01	0.04	<0.01
1935307		BH/17/01 W 231118 4.00	23-Nov-18 12:30	< 0.100*	< 0.100	<0.001	0.002	0.002	0.014	<0.0001	0.004	0.013	<0.001	0.055	0.197	0.45	<0.01	0.04	<0.01
1935308		BH/17/04 W 231118 5.00	23-Nov-18 12:30	< 0.100*	< 0.100	<0.001	<0.001	<0.001	<0.001	<0.0001	0.002	0.002	<0.001	0.027	0.146	0.17	<0.01	0.03	<0.01
1935309		BH/17/03 W 231118 5.00	23-Nov-18 12:30	< 0.100*	< 0.100	<0.001	<0.001	0.007	0.002	<0.0001	0.001	0.007	0.001	0.182	0.045	0.1	<0.01	0.03	<0.01
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>				Client Name SOCOTEC UK Doncaster Contact Neil Cooke	Sample Analysis														
				A8013-18 A1 Alnwick to Ellingham															
								Date Printed 20-Dec-2018											
								Report Number EXR/274297											
								Table Number 1											


LAB ID Number	EX/	Client Sample Description	Sample Date	Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l		
				Method Codes :	ICPWATVAR	ICPWATVAR	ICPWATVAR	ICPWATVAR	KONENS	KONENS	KONENS	KONENS	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW
				Method Reporting Limits :	1	1	3	3	0.01	1	0.003	0.2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
				UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
				Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Total Sulphur as SO ₄ (Dissolved) a	Total Sulphur as SO ₄ (Total) a	Ammoniacal Nitrogen as N	Chloride as Cl w	Chromium VI as Cr	Nitrate as N	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Benzo-a-Pyrene		
1935304		A1-BH/17/13 W 231118 5.00	23-Nov-18 10:30	142	23	60	87	0.25	35	<0.003	<0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
1935305		BH/17/14 W 231118 3.00	23-Nov-18 11:30	66	14	132	494	1.0	28	<0.003	<0.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		
1935306		BH/17/02 W 231118 4.00	23-Nov-18 12:30	62	15	90	159	0.03	68	<0.003	<0.2	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04		
1935307		BH/17/01 W 231118 4.00	23-Nov-18 12:30	113	21	28	117	0.03	28	<0.003	<0.2	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04		
1935308		BH/17/04 W 231118 5.00	23-Nov-18 12:30	107	17	48	52	0.2	36	<0.003	<0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
1935309		BH/17/03 W 231118 5.00	23-Nov-18 12:30	185	36	109	114	0.4	18	<0.003	8.3	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		

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	Contact	Neil Cooke			
	A8013-18 A1 Alnwick to Ellingham			Date Printed	20-Dec-2018
				Report Number	EXR/274297
Table Number				1	

LAB ID Number	EX/	Client Sample Description	Sample Date	Units :													mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l							
				Method Codes :																				PHEHPLCVL	PHEHPLCVL	PHEHPLCVL	PHEHPLCVL	SFAPI	SFAPI	SFAS
				Method Reporting Limits :																										
				UKAS Accredited :																										
µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l											
PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	0.16	0.0005	0.0005	0.0005	0.0005	0.02	0.02	0.02									
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes									
Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH (Sum of USEPA 16)	Cresols	Dimethylphenols	Phenol	Trimethylphenols	Cyanide (Free) as CN	Cyanide (Total) as CN	Sulphide as S															
1935304		A1-BH/17/13 W 231118 5.00	23-Nov-18 10:30	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.16	<0.0005	<0.0005	<0.0009	<0.0005	<0.02	<0.02	<0.02										
1935305		BH/17/14 W 231118 3.00	23-Nov-18 11:30	< 0.10	< 0.10	0.13	0.10	< 0.10	0.28	0.56	0.14	< 2.32	<0.0005	<0.0005	<0.0009	<0.0005	<0.0005	<0.02	0.08	4.86										
1935306		BH/17/02 W 231118 4.00	23-Nov-18 12:30	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.64	<0.0005	<0.0005	<0.0009	<0.0005	<0.02	0.03	5.58										
1935307		BH/17/01 W 231118 4.00	23-Nov-18 12:30	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.64	<0.0005	<0.0005	<0.0009	<0.0005	<0.02	0.02	0.63										
1935308		BH/17/04 W 231118 5.00	23-Nov-18 12:30	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.16	<0.0005	<0.0005	<0.0009	<0.0005	<0.02	0.03	0.26										
1935309		BH/17/03 W 231118 5.00	23-Nov-18 12:30	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.16	<0.0005	<0.0005	0.0012	<0.0005	<0.02	0.02	<0.02										

 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>	Client Name	SOCOTEC UK Doncaster			Sample Analysis				
	Contact	Neil Cooke							
	A8013-18 A1 Alnwick to Ellingham					Date Printed	20-Dec-2018		
						Report Number	EXR/274297		
Table Number						1			

LAB ID Number	EX/	Client Sample Description	Sample Date	Units :													uS/cm	pH units	pH units				
				Method Codes :																WSLM13	WSLM2	WSLM3	WSLM56
				Method Reporting Limits :																			
				UKAS Accredited :																			
mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l						
TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si					
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01					
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
TPH Ali Band >C10-C12	TPH Ali Band >C12-C16	TPH Ali Band >C16-C21	TPH Ali Band >C21-C35	TPH Ali Band >C8-C10	TPH Ali Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	Dissolved Organic Carbon w	Conductivity uS/cm @ 25C w	pH units w	pH units (BS1377) w								
1935304	A1-BH/17/13 W 231118 5.00	23-Nov-18 10:30	< 0.010	< 0.010*	0.014	0.115	< 0.010	0.224	< 0.010	< 0.010*	< 0.010	0.025*	< 0.010	0.046	2.4	840	7.5	7.5					
1935305	BH/17/14 W 231118 3.00	23-Nov-18 11:30	< 0.100	< 0.100*	0.157	1.27	< 0.100	2.16	< 0.100	< 0.100*	< 0.100	0.293*	< 0.100	0.409	10	1060	7.7	7.9					
1935306	BH/17/02 W 231118 4.00	23-Nov-18 12:30	< 0.040	< 0.040*	0.053	0.444	< 0.040	0.867	< 0.040	< 0.040*	< 0.040	0.106*	< 0.040	0.222	3.0	977	7.9	8.0					
1935307	BH/17/01 W 231118 4.00	23-Nov-18 12:30	< 0.040	< 0.040*	0.054	0.474	< 0.040	0.889	< 0.040	< 0.040*	< 0.040	0.117*	< 0.040	0.194	8.1	809	7.8	7.9					
1935308	BH/17/04 W 231118 5.00	23-Nov-18 12:30	< 0.010	< 0.010*	< 0.010	0.068	< 0.010	0.117	< 0.010	< 0.010*	< 0.010	0.019*	< 0.010	0.034	1.1	654	7.5	7.7					
1935309	BH/17/03 W 231118 5.00	23-Nov-18 12:30	< 0.010	< 0.010*	0.010	0.070	< 0.010	0.149	< 0.010	< 0.010*	< 0.010	0.026*	< 0.010	0.044	3.0	1030	7.1	7.4					

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	Contact	Neil Cooke							
	A8013-18 A1 Alnwick to Ellingham					Date Printed	20-Dec-2018		
						Report Number	EXR/274297		
Table Number						1			

Customer **SOCOTEC UK Doncaster**
Site **A8013-18 A1 Alnwick to Ellingham**
Report No **W274297**

Consignment No W146839
Date Logged 28-Nov-2018
In-House Report Due 05-Dec-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	Matrix Type	MethodID	BTEXHSA	Calc - CR3	CALONHA	CUSTSERV	GROHSA	ICPMSW	Nickel as Ni MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Molybdenum as Mo MS (Dissolved)	Antimony as Sb MS (Dissolved)	Chromium as Cr MS (Total)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	
																							Ammoniacal Nitrogen as NH4 Calc
EX/1935304	A1-BH/17/13 5.00	Groundwater	23/11/18	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EX/1935305	BH/17/14 3.00	Groundwater	23/11/18																				
EX/1935306	BH/17/02 4.00	Groundwater	23/11/18																				
EX/1935307	BH/17/01 4.00	Groundwater	23/11/18																				
EX/1935308	BH/17/04 5.00	Groundwater	23/11/18																				
EX/1935309	BH/17/03 5.00	Groundwater	23/11/18																				

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
□	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Where individual results are flagged see report notes for status.

Sample Analysis

SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

W274297

Customer SOCOTEC UK Doncaster
Site A8013-18 A1 Alnwick to Ellingham
Report No W274297

Consignment No W146839
Date Logged 28-Nov-2018
In-House Report Due 05-Dec-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	Matrix Type	MethodID	WSUM56
			Sampled	pH units (BS1377)
EX/1935304	A1-BH/17/13 5.00	Groundwater	23/11/18	EF
EX/1935305	BH/17/14 3.00	Groundwater	23/11/18	EF
EX/1935306	BH/17/02 4.00	Groundwater	23/11/18	EF
EX/1935307	BH/17/01 4.00	Groundwater	23/11/18	EF
EX/1935308	BH/17/04 5.00	Groundwater	23/11/18	EF
EX/1935309	BH/17/03 5.00	Groundwater	23/11/18	EF

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E Sample processing did not commence within the appropriate holding time
- F Sample processing did not commence within the appropriate handling time

Requested Analysis Key

- Analysis Required
- Analysis dependant upon trigger result - **Note: due date may be affected if triggered**
- No analysis scheduled
- ^ Analysis Subcontracted - **Note: due date may vary**

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Where individual results are flagged see report notes for status.

Additional Report Notes

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
BTEXHSA	EX1935304 TO EX1935309	The Secondary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. However the remaining data gives the Laboratory confidence that the test has performed satisfactorily (including the Primary Process Control) and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation , where applicable, from the affected analytes (M/P xylenes) . These circumstances should be taken into consideration when utilising the data.
PAHMSW	EX1935305- EX1935307	The matrix of this sample has been found to interfere with the result for this test. The sample has therefore been diluted to improve the signal to noise ratio but in doing so, the detection limit for this test has been elevated.
TPHFID-Si	EX1935304 TO EX1935309	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. However the remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (C21-C35) on the aromatic fraction . These circumstances should be taken into consideration when utilising the data
TPHFID-Si	EX1935304 TO EX1935309	The Secondary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. However the remaining data gives the Laboratory confidence that the test has performed satisfactorily (including the Primary Process Control) and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation , where applicable, from the affected analytes (C12-C16) for the aliphatic and aromatic fraction. These circumstances should be taken into consideration when utilising the data
PHEHPLCVL	EX1935304 TO EX1935309	The Primary process control Blank Sample associated with the results for this test has been contaminated during the Laboratory process. As we have insufficient sample to repeat, the laboratory believes that the validity of the data has not been affected however the reportable detection limit for Phenol has been elevated to take this into account

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Water	BTEXHSA	As Received	Benzene, Toluene, Ethylbenzene, & Xylenes by headspace extraction GCFID quantitation
Water	Calc_CR3	As Received	Calculation of Chromium III from Total Chromium and Chromium VI
Water	CALCNH4	As Received	Ammoniacal Nitrogen expressed as NH ₄ , calculated from Ammoniacal Nitrogen expressed as N
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPMSWT	As Received	Determination of Total Metals in water samples using nitric acid digestion and ICPMS quantitation
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	ICPWATVART	As Received	Determination of Total Metals in water samples using nitric acid digestion and ICPOES quantitation
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PAHMSW	As Received	Determination of PolyAromatic Hydrocarbons in water by pentane extraction GCMS quantitation
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Water	SFAS	As Received	Determination of Sulphide by segmented flow analysis with colorimetric detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in water by GCFID
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and non-dispersive IR detection
Water	WSLM2	As Received	Determination of the Electrical Conductivity ($\mu\text{S}/\text{cm}$) by electrical conductivity probe.
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM56	As Received	Determination of the pH of water samples by pH probe

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

▯ Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

TEST REPORT



1252

Report No. EXR/274392 (Ver. 1)

SOCOTEC UK Doncaster
Askern Road
Carcroft
Doncaster
South Yorkshire
DN6 8DG

Site: A8013-18 A1 Alnwick to Ellingham

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 28-Nov-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 19-Dec-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Analytical and Deviating Sample Overview (Pages 7 to 8)
Table of Additional Report Notes (Page 9)
Table of Method Descriptions (Page 10)
Table of Report Notes (Page 11)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited
Becky Batham




Operations Manager
Energy & Waste Services


Date of Issue: 19-Dec-2018


Tests marked '^' have been subcontracted to another laboratory.


Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.


SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

		Units :	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		
		Method Codes :	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	BTEXHSA	Calc_CR3	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA	GROHSA		
		Method Reporting Limits :	5	5	10	10	5	5	15	0.003	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No		
LAB ID Number	EX/	Client Sample Description	Sample Date	Benzene	Ethyl Benzene	m/p Xylenes	MTBE	o Xylene	Toluene	Xylenes	Chromium (III)	GRO >C5->C6	GRO >C5->C6 Aliphatic	GRO >C6->C7	GRO >C6->C7 Aliphatic	GRO >C7->C8	GRO >C7->C8 Aliphatic	GRO >C8->C10	GRO >C8->C10 Aliphatic
1935695		BH/17/06 8.00		< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0	< 15.0	<0.003	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
1935696		BH/17/11 7.00		< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0	< 15.0	0.052	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
1935697		BH/17/09 5.00		< 5.0	< 5.0	< 10.0	< 10.0	< 5.0	< 5.0	< 15.0	0.096	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>		Client Name SOCOTEC UK Doncaster Contact Tim Rust	Sample Analysis																
		A8013-18 A1 Alnwick to Ellingham										Date Printed 19-Dec-2018							
												Report Number EXR/274392							
												Table Number 1							

			Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l			
			Method Codes :	GROHSA	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSWT	ICPWATVAR	ICPWATVAR	ICPWATVAR			
			Method Reporting Limits :	0.1	0.001	0.001	0.0001	0.001	0.001	0.001	0.0001	0.001	0.001	0.002	0.001	0.01	0.01	0.01		
			UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes			
LAB ID Number	EX/	Client Sample Description	Sample Date	GRO-HSA	Antimony as Sb (Dissolved)	Arsenic as As (Dissolved)	Cadmium as Cd (Dissolved)	Chromium as Cr (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Mercury as Hg (Dissolved)	Molybdenum as Mo (Dissolved)	Nickel as Ni (Dissolved)	Selenium as Se (Dissolved)	Zinc as Zn (Dissolved)	Chromium as Cr (Total)	Barium as Ba (Dissolved) a	Beryllium as Be (Dissolved) a	Boron as B (Dissolved) a	
																				o
1935695		BH/17/06 8.00		< 0.100	<0.001	<0.001	<0.0001	<0.001	<0.001	<0.001	0.0004	0.111	0.002	<0.001	0.075	<0.001	0.08	>0.01	0.15	
1935696		BH/17/11 7.00		< 0.100	<0.001	<0.001	0.0003	<0.001	0.005	0.003	<0.0001	0.001	0.005	<0.001	0.036	0.055	0.18	>0.01	0.15	
1935697		BH/17/09 5.00		< 0.100	<0.001	0.002	0.0011	<0.001	0.008	0.002	<0.0001	0.018	0.006	0.002	0.034	0.099	3.28	<0.1	<0.1	
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>				Client Name		SOCOTEC UK Doncaster								Sample Analysis						
				Contact		Tim Rust														
				A8013-18 A1 Alnwick to Ellingham											Date Printed	19-Dec-2018				
															Report Number	EXR/274392				
											Table Number	1								

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l		
		Method Codes :	ICPWATVAR	ICPWATVAR	ICPWATVAR	KONENS	KONENS	KONENS	KONENS	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW		
		Method Reporting Limits :	1	1	3	0.01	1	0.003	0.2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
LAB ID Number	EX/	Client Sample Description	Sample Date	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Total Sulphur as SO4 (Dissolved) a	Ammoniacal Nitrogen as N	Chloride as Cl w	Chromium VI as Cr	Nitrate as N	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Benzo-a-Pyrene	Chrysene
1935695		BH/17/06 8.00		18	5	98	0.12	33	>0.003	<0.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1935696		BH/17/11 7.00		123	38	31	0.18	207	>0.003	<0.2	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
1935697		BH/17/09 5.00		502	86	110	0.09	32	>0.003	0.5	< 0.01	< 0.01	< 0.01	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01
 Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client Name	SOCOTEC UK Doncaster								Sample Analysis								
		Contact	Tim Rust																
		A8013-18 A1 Alnwick to Ellingham								Date Printed	19-Dec-2018								
										Report Number	EXR/274392								
A8013-18 A1 Alnwick to Ellingham								Table Number	1										
								A8013-18 A1 Alnwick to Ellingham											

			Units :	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
			Method Codes :	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PAHMSW	PHEHPLCVL	PHEHPLCVL	PHEHPLCVL	PHEHPLCVL	SFAPI	SFAPI	SFAS	TPHFID-Si
			Method Reporting Limits :	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.16	0.0005	0.0005	0.0005	0.0005	0.02	0.02	0.02	0.01	
			UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes		
LAB ID Number	EX/	Client Sample Description	Sample Date	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH (Sum of USEPA 16)	Cresols	Dimethylphenols	Phenol	Trimethylphenols	Cyanide (Free) as CN	Cyanide (Total) as CN	Sulphide as S	TPH All Band >C10-C12	
1935695		BH/17/06 8.00		< 0.10	0.19	0.22	< 0.10	0.39	0.60	0.23	> 2.73	<0.0005	0.0008	0.0018	<0.0005	<0.02	<0.02	0.14	< 0.010	
1935696		BH/17/11 7.00		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.64	<0.0005	0.0009	<0.0010	<0.0005	<0.02	<0.02	<0.02	< 0.010	
1935697		BH/17/09 5.00		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.01	>0.17	<0.0050	>0.0050	0.0163	<0.0050	<0.02	<0.02	>0.02	< 0.010	
 <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p>				Client Name		SOCOTEC UK Doncaster					Sample Analysis									
				Contact		Tim Rust														
				A8013-18 A1 Alnwick to Ellingham											Date Printed		19-Dec-2018			
															Report Number		EXR/274392			
A8013-18 A1 Alnwick to Ellingham											Table Number		1							

		Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	uS/cm	pH units	pH units
		Method Codes :	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	TPHFID-Si	WLSM13	WLSM2	WLSM3	WLSM56
		Method Reporting Limits :	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.2	100		
		UKAS Accredited :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	
LAB ID Number	EX/	Client Sample Description	Sample Date	TPH AII Band >C12-C16	TPH AII Band >C16-C21	TPH AII Band >C21-C35	TPH AII Band >C8-C10	TPH AII Band >C8-C40	TPH Aro Band >C10-C12	TPH Aro Band >C12-C16	TPH Aro Band >C16-C21	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	Disolved Organic Carbon w	Conductivity uS/cm @ 25C w	pH units w	pH units (BS1377) w
1935695		BH/17/06 8.00		< 0.010	0.012	0.108	< 0.010	0.146	< 0.010	< 0.010	< 0.010	0.014	< 0.010	0.027	7.3	682	8.3 *	8.5
1935696		BH/17/11 7.00		< 0.010	0.010	0.081	< 0.010	0.115	< 0.010	< 0.010	< 0.010	0.012	< 0.010	0.023	1.1	1157	7.8 *	7.8
1935697		BH/17/09 5.00		< 0.010	< 0.010	0.088	< 0.010	0.119	< 0.010	< 0.010	< 0.010	0.020	< 0.010	0.033	16	1187	8.8 *	8.8
SOCOTEC  Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client Name	SOCOTEC UK Doncaster											Sample Analysis				
		Contact	Tim Rust											Date Printed 19-Dec-2018 Report Number EXR/274392 Table Number 1				
		A8013-18 A1 Alnwick to Ellingham																

Customer **SOCOTEC UK Doncaster**
Site **A8013-18 A1 Alnwick to Ellingham**
Report No **W274392**

Consignment No W146982
Date Logged 28-Nov-2018
In-House Report Due 05-Dec-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	Matrix Type	MethodID	BTEX-HSA	Calc-CR3	CUSTSERV	GRO-HSA	ICPMSW	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Arsenic as As MS (Dissolved)	Mercury as Hg MS (Dissolved)	Selenium as Se MS (Dissolved)	Molybdenum as Mo MS (Dissolved)	Antimony as Sb MS (Dissolved)	Chromium as Cr MS (Total)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	
																						Report A
EX/1935695	BH/17/06 8.00	Groundwater	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
EX/1935696	BH/17/11 7.00	Groundwater	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
EX/1935697	BH/17/09 5.00	Groundwater	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
■	Analysis Required
■	Analysis dependant upon trigger result - Note: due date may be affected if triggered
■	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Where individual results are flagged see report notes for status.

Sample Analysis

SOCOTEC UK Ltd Environmental Chemistry
Analytical and Deviating Sample Overview

W274392

Customer **SOCOTEC UK Doncaster**
Site **A8013-18 A1 Alnwick to Ellingham**
Report No **W274392**

Consignment No W146982
Date Logged 28-Nov-2018
In-House Report Due 05-Dec-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	Matrix Type	Sampled	MethodID				KONENS	AMMONIACAL NITROGEN (KONE)	NITRATE AS N (KONE CALC)	CHROMIUM VI. AS CR (KONE)	PAH GC-MS (16)	PHENOLS BY HPLC (LOW LEVEL)	CYANIDE (FREE) AS CN SFA	CYANIDE (TOTAL) AS CN SFA	SULPHIDE AS S SFA	TPH BY GC(SI)	DISSOLVED ORGANIC CARBON	CONDUCTIVITY US/CM @ 25C	PH UNITS	PH UNITS (BS1377)
				MAGNESIUM AS MG (DISSOLVED) VAR	BARIUM AS BA (DISSOLVED) VAR	BORON AS B (DISSOLVED) VAR	BERYLLIUM AS BE (DISSOLVED) VAR														
EX/1935695	BH/17/06 8.00	Groundwater	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	DF	DF
EX/1935696	BH/17/11 7.00	Groundwater	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	DF	DF
EX/1935697	BH/17/09 5.00	Groundwater	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	DF	DF

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time
Requested Analysis Key	
	Analysis Required
	Analysis dependant upon trigger result - Note: due date may be affected if triggered
	No analysis scheduled
^	Analysis Subcontracted - Note: due date may vary

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Where individual results are flagged see report notes for status.

Report Number : W/EXR/274392

Additional Report Notes

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
PAHMSW	EX1935695 EX1935696	The matrix of this sample has been found to interfere with the result for this test. The sample has therefore been diluted to improve the signal to noise ratio but in doing so, the detection limit for this test has been elevated.
PHEHPLCVL	EX1935696	The Primary process control Blank Sample associated with the results for this test has been contaminated during the Laboratory process. As we have insufficient sample to repeat, the laboratory believes that the validity of the data has not been affected however the reportable detection limit for Phenol has been elevated to take this into account.
PHEHPLCVL	EX1935697	The matrix of this sample has been found to interfere with the result for this test. The sample has therefore been diluted to improve the signal to noise ratio but in doing so, the detection limit for this test has been elevated.

Where individual results are flagged see report notes for status.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Water	BTEXHSA	As Received	Benzene, Toluene, Ethylbenzene, & Xylenes by headspace extraction GCFID quantitation
Water	Calc_CR3	As Received	Calculation of Chromium III from Total Chromium and Chromium VI
Water	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace FID
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPMSWT	As Received	Determination of Total Metals in water samples using nitric acid digestion and ICPMS quantitation
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PAHMSW	As Received	Determination of PolyAromatic Hydrocarbons in water by pentane extraction GCMS quantitation
Water	PHEHPLCVL	As Received	Determination of Phenols by HPLC
Water	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Water	SFAS	As Received	Determination of Sulphide by segmented flow analysis with colorimetric detection
Water	TPHFID-Si	As Received	Determination of speciated pentane extractable hydrocarbons in water by GCFID
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and non-dispersive IR detection
Water	WSLM2	As Received	Determination of the Electrical Conductivity ($\mu\text{S}/\text{cm}$) by electrical conductivity probe.
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe
Water	WSLM56	As Received	Determination of the pH of water samples by pH probe

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

▯ Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

APPENDIX G
PHOTOGRAPHS

Rotary Cores
Trial Pits

Plate G1 to G26
Plate G27 to G105

Photographs



BH/17/01 Box 1 4.60m to 6.00m



BH/17/01 Box 2 6.50m to 9.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G1

Photographs



BH/17/01 Box 3 9.50m to 12.50m



BH/17/01 Box 4 12.50m to 15.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G2

Photographs



BH/17/02 Box 1 4.60m to 7.10m



BH/17/02 Box 2 7.10m to 10.10m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G3

Photographs



BH/17/02 Box 3 10.10m to 13.10m



BH/17/02 Box 4 13.10m to 15.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G4

Photographs



BH/17/03 Box 1 4.10m to Cut



BH/17/03 Box 2 Cut to 8.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G5

Photographs



BH/17/03 Box 3 8.50m to 10.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G6

Photographs



BH/17/04 Box 1 4.20m to 6.80m



BH/17/04 Box 2 6.80m to 8.30m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G7

Photographs



BH/17/04 Box 3 8.30m to 9.90m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G8

Photographs



BH/17/05A Box 1 2.40m to 4.00m



BH/17/05A Box 2 4.00m to 5.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G9

Photographs



BH/17/05A Box 1 5.50m to 7.00m



BH/17/05A Box 2 7.00m to 10.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G10

Photographs



BH/17/06 Box 1 9.40m to 11.50m



BH/17/06 Box 2 11.50m to 13.70m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G11

Photographs



BH/17/06 Box 3 13.70m to 14.80m



BH/17/03 Box 4 14.80m to 16.10m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G12

Photographs



BH/17/06 Box 5 16.10m to 17.60m



BH/17/06 Box 6 17.60m to 19.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G13

Photographs



BH/17/06 Box 7 19.00m to 20.30m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G14

Photographs



BH/17/07 Box 1 8.40m to 10.30m



BH/17/07 Box 2 10.30m to 11.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G15

Photographs



BH/17/07 Box 3 11.60m to 13.10m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G16

Photographs



BH/17/08 Box 1 5.50m to 10.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G17

Photographs



BH/17/09 Box 1 7.00m to 10.00m



BH/17/09 Box 2 10.00m to 13.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G18

Photographs



BH/17/10 Box 1 5.60m to 8.60m



BH/17/10 Box 2 8.60m to 10.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G19

Photographs



BH/17/11 Box 1 1.30m to 4.00m



BH/17/11 Box 2 4.00m to 8.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G20

Photographs



BH/17/11 Box 3 8.50m to 10.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G21

Photographs



BH/17/12 Box 1 8.00m to 11.50m



BH/17/12 Box 2 11.50m to 13.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G22

Photographs



BH/17/13 Box 1 6.00m to 9.00m



BH/17/13 Box 2 9.00m to 12.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G23

Photographs



BH/17/13 Box 3 12.00m to 15.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G24

Photographs



BH/17/14 Box 1 5.00m to 8.00m



BH/17/14 Box 2 8.00m to 11.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G25

Photographs



BH/17/14 Box 3 11.00m to 14.00m



BH/17/14 Box 2 14.00m to 15.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G26

Photographs



TP/17/01 Face A 3.90m



TP/17/01 Face B 3.90m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G27

Photographs



TP/17/01 Spoil 3.90m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G28

Photographs



TP/17/02 Face A 2.20m



TP/17/02 Face C 2.20m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G29

Photographs



TP/17/03 Face A & B 3.60m



TP/17/03 Face C & D 3.60m

Notes:

Project A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G30

Photographs



TP/17/03 Spoil 3.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G31



TP/17/04 Face A & B 1.20m



TP/17/04 Spoil 1.20m

Notes:

Project	A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G32

Photographs



TP/17/05 Face A 3.60m



TP/17/05 Face B/C 3.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G33

Photographs



TP/17/06 Face A 3.50m



TP/17/06 Face B 3.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G34

Photographs



TP/17/06 Spoil 3.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G35

Photographs



TP/17/07 Face C 2.60m



TP/17/07 Face B 2.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G36

Photographs



TP/17/07 Spoil 2.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G37

Photographs



TP/17/08 Face A 1.50m



TP/17/08 Face B 1.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G38

Photographs



TP/17/08 Spoil 1.50m

TP/BH/WS 0.00m - 0.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G39



TP/17/09 Face A/B 0.50m



TP/17/09A Face A 2.30m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G40



TP/17/09A Face B 2.30m



TP/17/09A Spoil 2.30m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G41

Photographs



TP/17/10 Face A 3.50m



TP/17/10 Face B 3.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G42

Photographs



TP/17/10 Spoil 3.50m

TP/BH/WS 0.00m - 0.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G43

Photographs



TP/17/11 Face C 2.60m



TP/17/11 Face A 2.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G44



TP/17/11 Spoil 2.60m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G45

Photographs



TP/17/12 Face A 3.30m



TP/17/12 Face B 3.30m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G46

Photographs



TP/17/12 Spoil 3.30m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G47

Photographs



TP/17/13 Face A/B 2.20m



TP/17/13 Spoil 2.20m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G48

Photographs



TP/17/14 Face A 1.70m



TP/17/14 Face B 1.70m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G49



TP/17/14 Spoil 1.70m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G50

Photographs



TP/17/15 Face A 2.60m



TP/17/15 Spoil 2.60m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G51

Photographs



TP/17/16 Face D/A 2.30m



TP/17/16 Face B/C 2.30m

Notes:

Project A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G52

Photographs



TP/17/16 Spoil 2.30m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G53



TP/17/17 Face D/A 1.70m



TP/17/17 Face B/C 1.70m

Notes:

Project A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G54

Photographs



TP/17/17 Spoil 1.70m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G55

Photographs



TP/17/18 Face D/A 3.00m



TP/17/18 Face B/C 3.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G56



TP/17/18 Spoil 3.00m

TP/BH/WS 0.00m - 0.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G57

Photographs



TP/17/19 Face D/A 3.60m



TP/17/19 Face B/C 3.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G58

Photographs



TP/17/19 Spoil 3.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G59

Photographs



TP/17/20 Face D/A 3.50m



TP/17/20 Spoil 3.50m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G60

Photographs



TP/17/21 Face A/B 3.50m



TP/17/21 Face C/D 3.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G61

Photographs



TP/17/21 Spoil 3.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G62



TP/17/22 Face A/B 3.30m



TP/17/22 Face C/D 3.30m

Notes:

Project A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G63



TP/17/22 Spoil 3.30m



TP/17/22 Boulder 1.50m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G64

Photographs



TP/17/23 Face A 3.50m



TP/17/23 Face B 3.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G65



TP/17/23 Spoil 3.50m

TP/BH/WS 0.00m - 0.00m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G66

Photographs



TP/17/24 Face A 2.60m



TP/17/24 Face C 2.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G67

Photographs



TP/17/24 2.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G68

Photographs



TP/17/25 Face A/B 2.40m



TP/17/25 Face C/D 2.40m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G69

Photographs



TP/17/25 Spoil 2.40m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G70

Photographs



TP/17/29 Face A 4.00m



TP/17/29 Face B/C 4.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G71

Photographs



TP/17/30 Face A 1.70m



TP/17/30 Spoil 1.70m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G72

Photographs



TP/17/31 Face A 2.50m



TP/17/31 Spoil 2.50m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G73

Photographs



TP/17/31 Face B/C 2.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G74

Photographs



TP/17/32 Face A 1.70m



TP/17/32 Face B 1.70m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G75

Photographs



TP/17/32 Spoil 1.70m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G76

Photographs



TP/17/33 Face A 1.50m



TP/17/33 Face B 1.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G77



TP/17/33 Spoil 1.50m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G78

Photographs



TP/17/35 Face A 2.60m



TP/17/35 Face B 2.60m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G79



TP/17/35 Spoil 2.60m

TP/BH/WS 0.00m - 0.00m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G80



TP/17/36 Face A 3.50m



TP/17/36 Face B 3.50m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G81



TP/17/36 Spoil 3.50m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G82



TP/17/38 Face A 2.00m



TP/17/38 Face B 2.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G83



TP/17/38 Spoil 2.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G84

Photographs



TP/17/39 Face A 3.00m



TP/17/39 Face B 3.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G85



TP/17/39 Spoil 3.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G86

Photographs



TP/17/40 Face A 2.80m



TP/17/40 Spoil 2.80m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
 Carried out for Geoffrey Osborne Limited

Figure:

G87

Photographs



TP/17/41 Face A 3.00m



TP/17/41 Face B/C 3.00m

Notes:

Project A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G88

Photographs



TP/17/41 Spoil 3.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G89

Photographs



TP/17/42 Face A 2.40m



TP/17/42 Face C 2.40m

Notes:

Project A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G90

Photographs



TP/17/42 Spoil 2.40m

Notes:

Project	A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No.	A8013-18
Carried out for	Geoffrey Osborne Limited

Figure:

G91

Photographs



TP/17/43 Face D/A 2.70m



TP/17/43 Face B/C 2.70m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G92



TP/17/43 Spoil 2.40m

TP/BH/WS 0.00m - 0.00m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G93

Photographs



TP/17/44 Face D/A 2.30m



TP/17/44 Face B/C 2.30m

Notes:

Project A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G94

Photographs



TP/17/44 Spoil 2.30m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
Carried out for Geoffrey Osborne Limited

Figure:

G95

Photographs



TP/17/45 Face D/A 2.30m



TP/17/45 Face B/C 2.30m

Notes:

Project A1IN MORPETH TO FELTON & ALNWICK TO ELLINGHAM
Project No. A8013-18
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Figure:

G96

Photographs



TP/17/46 Face A/B 1.20m



TP/17/46 Face C/D 1.20m

Notes:

Project A11N MORPETH TO FELTON & ALNWICK TO ELLINGHAM
 Project No. A8013-18
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Figure:

G97

Photographs



TP/17/46 Spoil 1.20m

Notes:

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Project No. A8013-18
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Figure:

G98

Photographs



TP/17/47 Face A/B 3.00m



TP/17/47 Face C/D 3.00m

Notes:

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Figure:

G99

Photographs



TP/17/47 Spoil 3.00m

Notes:

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Figure:

G100

Photographs



TP/17/48 Face A 3.00m



TP/17/48 Face C 3.00m

Notes:

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Figure:

G101

Photographs



TP/17/48 Spoil 3.00m

Notes:

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Figure:

G102

Photographs



HP/17/01 1.30m



HP/17/01 Cable Marker 1.30m

Notes:

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Figure:

G103

Photographs



HP/17/02 1.00m



HP/17/02 1.00m

Notes:

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Figure:

G104

Photographs



HP/17/03 1.00m

Notes:

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Figure:

G105

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