

Our Ref: BEK/19661/211115/CGL/P30

15 November 2021

FAO Paul Hunter
The Casey Group
Rydings Road
Rochdale
OL12 9PS

Dear Paul,

Residential Development at Ilk Street and Alpine Street, Clayton- PLOT 30

BEK Enviro (BEK) has been commissioned by The Casey Group (CG) to supervise and validate the remediation works required at the above site.

The approved remediation works are detailed in the BEK Report entitled 'Remediation Method Statement' (Report Ref BEK-19661-1 (Rev D)), dated December 2019.

Clean Cover System

The approved remediation requirement comprise the installation of a clean cover system in private gardens and soft landscaped areas as follows:

'The gardens within Plots 26 to 62 will need to be capped with a minimum of 600 mm of clean suitable soils (minimum 450 mm topsoil overlying 150 mm subsoil). Any soft landscaped areas in the vicinity of Plots 26 to 62 will need to be capped with a minimum of 450 mm of clean suitable soils. Soils used in the capping system will need to be tested and assessed and ensure suitability for use. The soils will be placed on a geo-membrane to act as a marker layer and prevent mixing. Final capping thickness will also need to be validated.'

To comply with the above recommendations, CG have imported subsoil from Shire Hill Quarry, Glossop. Source testing has been carried out by BEK to confirm suitability (SS-1 to SS-3). Subsoil source test data is presented in Annex A). To ensure consistency, BEK recovered an additional 6 validation samples (VS-SS1 to VS-SS6) of subsoil from the rear garden following formation of the capping layer. There is no formal requirement to test virgin quarried material. However, BEK will maintain a watch brief on the subsoil and take periodic samples at the discretion of our own engineers to ensure visual and chemical consistency of the material.

The topsoil has been sourced the topsoil from Frank O'Gara & Sons from Protos, Ince Marshes in Ellesmere Port. Source test data for the topsoil is presented in Annex A. To ensure consistency, BEK recovered additional validation samples (VS-TS1 to VS-TS10) of topsoil from the rear garden following formation of the capping layer. The most recent results (VS-TS8 to VS-TS10) are included within Annex B.



GEO-ENVIRONMENTAL CONSULTING ENGINEERS

bEk Enviro Ltd

Suite One | No 3 Mitton Road Business Park
Mitton Road | Whalley | Lancashire | BB7 9YE
01254 377622

mbuckley@bekenviron.co.uk | bekenviron.co.uk

All imported samples recovered by BEK at the Ilk Street and Alpine Street, Clayton site were submitted to the UKAS accredited laboratories of Envirolab and chemically tested for a wide range of potential contaminants of concern. Copies of the chemical test results are presented in Annex B. All available chemical test results have been compared to approved assessment criteria (as presented in the Remediation Strategy) and BEK can confirm that the sub/topsoil is suitable for use in a residential garden.

Following placement of the validated soils by CG, an engineer from BEK carried out spot checks and can confirm that the capping layer for Plot 30 comprises in excess of 600 mm of suitably clean validated soils. The capping soils overly a geotextile membrane at the base. Photographs showing capping thickness are provided within Annex C.

BEK can confirm that the remediation works required for Plot 30 at the Residential Development at Ilk Street and Alpine Street, Clayton have been completed in accordance with the approved methodology.

I trust the above is satisfactory. Should you require anything further please do not hesitate to contact the undersigned.

Yours sincerely

MICHAEL BUCKLEY

BSc (Hons) MSc MEnvSci CEnv

ANNEX A

Source Test Data

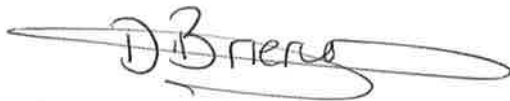
FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 21/00719
Issue Number: 1
Date: 03 February, 2021

Client: BEK Enviro Ltd
Suite One
No 3 Mitton Road Business Park
Mitton Road
Whalley
Lancashire
BB7 9YE

Project Manager: Mick Buckley
Project Name: Shire Hill Quarry - Source Test Data - Subsoil
Project Ref: Not specified
Order No: 6981/20685/J
Date Samples Received: 26/01/21
Date Instructions Received: 26/01/21
Date Analysis Completed: 03/02/21

Prepared by:



Danielle Brierley
Client Manager

Approved by:



Holly Neary-King
Client Services Supervisor

Envirolab Job Number: 21/00719

Client Project Name: Shire Hill Quarry - Source Test Data - Subsoil

Client Project Ref: Not specified

Lab Sample ID	21/00719/1	21/00719/2	21/00719/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SS-1	SS-2	SS-3							
Depth to Top										
Depth To Bottom										
Date Sampled	26-Jan-21	26-Jan-21	26-Jan-21							
Sample Type	Soil	Soil	Soil							
Sample Matrix Code	2A	4A	4A							
% Stones >10mm _A	28.3	26.8	25.0					% w/w	0.1	A-T-044
pH _D ^{M#}	5.36	5.27	6.01					pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	0.02	<0.01					g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	<200	<200	<200					mg/kg	200	A-T-028s
Cyanide (total) _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2					mg/kg	0.2	A-T-050s
Organic matter _D ^{M#}	0.4	0.4	0.5					% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	<1	<1	<1					mg/kg	1	A-T-024s
Boron (water soluble) _D	<1.0	<1.0	<1.0					mg/kg	1	A-T-027s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	2	1	4					mg/kg	1	A-T-024s
Chromium _D ^{M#}	13	12	14					mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1					mg/kg	1	A-T-040s
Lead _D ^{M#}	7	7	8					mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	13	12	15					mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	45	42	47					mg/kg	5	A-T-024s

Envirolab Job Number: 21/00719

Client Project Name: Shire Hill Quarry - Source Test Data - Subsoil

Client Project Ref: Not specified

Lab Sample ID	21/00719/1	21/00719/2	21/00719/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SS-1	SS-2	SS-3							
Depth to Top										
Depth To Bottom										
Date Sampled	26-Jan-21	26-Jan-21	26-Jan-21							
Sample Type	Soil	Soil	Soil							
Sample Matrix Code	2A	4A	4A							
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	0.03					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08					mg/kg	0.01	A-T-019s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client:	BEK Enviro Ltd, Suite One , No 3 Mitton Road Business Park , Mitton Road , Whalley , Lancashire , BB7 9YE	Project No:	21/00719
Project:	Shire Hill Quarry - Source Test Data - Subsoil	Date Received:	26/01/2021 (am)
Clients Project No:		Cool Box Temperatures (°C):	5.4

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 21/04268
Issue Number: 1
Date: 06 May, 2021

Client: Frank O'Gara & Sons Ltd,
Sorby Road,
Northbank
Irlam
Manchester
UK
M44 5BA

Project Manager: John O'Gara/Keith Lewis
Project Name: Protos, E'Port
Project Ref: N/A
Order No: PP57816
Date Samples Received: 21/04/21
Date Instructions Received: 22/04/21
Date Analysis Completed: 05/05/21

Prepared by:



Melanie Marshall
Laboratory Coordinator

Approved by:



Danielle Brierley
Client Manager

Envirolab Job Number: 21/04268

Client Project Name: Protos, E'Port

Client Project Ref: N/A

Lab Sample ID	21/04268/1	21/04268/2	21/04268/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Topsoil 1	Topsoil 2	Topsoil 3							
Depth to Top										
Depth To Bottom										
Date Sampled	21-Apr-21	21-Apr-21	21-Apr-21							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	4AE	4AE	4AE							
% Stones >10mm _A	3.8	7.3	<0.1					% w/w	0.1	A-T-044
pH _D ^{M#}	6.73	6.60	6.74					pH	0.01	A-T-031s
Ammonia / Ammoniacal Nitrogen as NH ₃ _D	14.6	20.1	15.7					mg/kg	0.24	A-T-033s
Chloride (water sol 2:1) _D ^{M#}	<10	<10	<10					mg/kg	10	A-T-026s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01					g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	340	340	360					mg/kg	200	A-T-028s
Cyanide (free) _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-042sFCN
Arsenic _D ^{M#}	3	3	3					mg/kg	1	A-T-024s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	13	12	13					mg/kg	1	A-T-024s
Chromium _D ^{M#}	15	15	16					mg/kg	1	A-T-024s
Lead _D ^{M#}	26	20	22					mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	11	10	10					mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	35	32	35					mg/kg	5	A-T-024s
TPH total (>C6-C40) _A ^{M#}	25	48	59					mg/kg	10	A-T-007s

Envirolab Job Number: 21/04268

Client Project Name: Protos, E'Port

Client Project Ref: N/A

Lab Sample ID	21/04268/1	21/04268/2	21/04268/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Topsoil 1	Topsoil 2	Topsoil 3							
Depth to Top										
Depth To Bottom										
Date Sampled	21-Apr-21	21-Apr-21	21-Apr-21							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	4AE	4AE	4AE							
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD							A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A							A-T-045

Envirolab Job Number: 21/04268

Client Project Name: Protos, E'Port

Client Project Ref: N/A

Lab Sample ID	21/04268/1	21/04268/2	21/04268/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Topsoil 1	Topsoil 2	Topsoil 3							
Depth to Top										
Depth To Bottom										
Date Sampled	21-Apr-21	21-Apr-21	21-Apr-21							
Sample Type	Soil - ES	Soil - ES	Soil - ES							
Sample Matrix Code	4AE	4AE	4AE							
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08					mg/kg	0.01	A-T-019s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client:	Frank O'Gara & Sons Ltd, Sorby Road, Northbank, Irlam, Manchester, UK, M44	Project No:	21/04268
	5BA	Date Received:	22/04/2021 (am)
Project:	Protos, E'Port	Cool Box Temperatures (°C):	14.9
Clients Project No:	N/A		

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

ANNEX B

Validation Chemical Test Results

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 21/09690
Issue Number: 1

Date: 17 September, 2021

Client: BEK Enviro Ltd
Suite One
No 3 Mitton Road Business Park
Mitton Road
Whalley
Lancashire
BB7 9YE

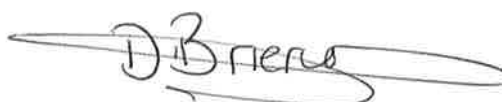
Project Manager: Mick Buckley
Project Name: Ilk Street, Clayton
Project Ref: Not specified
Order No: 7221-19661-M
Date Samples Received: 07/09/21
Date Instructions Received: 07/09/21
Date Analysis Completed: 17/09/21

Prepared by:



Richard Wong
Client Manager

Approved by:



Danielle Brierley
Client Manager

Envirolab Job Number: 21/09690

Client Project Name: Ilk Street, Clayton

Client Project Ref: Not specified

Lab Sample ID	21/09690/1	21/09690/2	21/09690/3	21/09690/4	21/09690/5	21/09690/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-SS1	VS-SS2	VS-SS3	VS-SS4	VS-SS5	VS-SS6				
Depth to Top										
Depth To Bottom										
Date Sampled	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21				
Sample Type	Solid	Solid	Solid	Solid	Solid	Solid				
Sample Matrix Code	7	7	7	7	7	7				
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		% w/w	0.1	A-T-044
pH _D ^{M#}	7.21	6.80	6.83	6.50	6.60	6.72		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	0.03	0.08	0.09	0.08	0.05		g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	1000	850	880	1100	880	730		mg/kg	200	A-T-028s
Cyanide (total) _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		mg/kg	0.2	A-T-050s
Organic matter _D ^{M#}	5.4	5.7	4.1	4.4	4.2	4.6		% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	6	9	4	2	2	6		mg/kg	1	A-T-024s
Boron (water soluble) _D	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium _D ^{M#}	1.6	1.4	1.3	1.3	1.4	1.4		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	56	51	45	49	52	52		mg/kg	1	A-T-024s
Chromium _D ^{M#}	28	33	25	26	28	24		mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead _D ^{M#}	38	30	27	34	33	29		mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17		mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	51	59	45	47	49	46		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	109	119	96	95	98	100		mg/kg	5	A-T-024s

Envirolab Job Number: 21/09690

Client Project Name: Ilk Street, Clayton

Client Project Ref: Not specified

Lab Sample ID	21/09690/1	21/09690/2	21/09690/3	21/09690/4	21/09690/5	21/09690/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-SS1	VS-SS2	VS-SS3	VS-SS4	VS-SS5	VS-SS6				
Depth to Top										
Depth To Bottom										
Date Sampled	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21				
Sample Type	Solid	Solid	Solid	Solid	Solid	Solid				
Sample Matrix Code	7	7	7	7	7	7				
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A	N/A	N/A	N/A				A-T-045

Envirolab Job Number: 21/09690

Client Project Name: Ilk Street, Clayton

Client Project Ref: Not specified

Lab Sample ID	21/09690/1	21/09690/2	21/09690/3	21/09690/4	21/09690/5	21/09690/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-SS1	VS-SS2	VS-SS3	VS-SS4	VS-SS5	VS-SS6				
Depth to Top										
Depth To Bottom										
Date Sampled	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21				
Sample Type	Solid	Solid	Solid	Solid	Solid	Solid				
Sample Matrix Code	7	7	7	7	7	7				
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	0.02		mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	<0.02	0.02		mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	0.15		mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	0.18		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	0.18		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	0.09		mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	<0.06	<0.06	0.20		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08	0.26		mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	0.01		mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	0.10		mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.08	0.07	0.06	0.06	0.06	0.13		mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	0.25		mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	0.08	<0.08	<0.08	<0.08	<0.08	1.59		mg/kg	0.01	A-T-019s

Envirolab Job Number: 21/09690

Client Project Name: Ilk Street, Clayton

Client Project Ref: Not specified

Lab Sample ID	21/09690/1	21/09690/2	21/09690/3	21/09690/4	21/09690/5	21/09690/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-SS1	VS-SS2	VS-SS3	VS-SS4	VS-SS5	VS-SS6				
Depth to Top										
Depth To Bottom										
Date Sampled	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21	06-Sep-21				
Sample Type	Solid	Solid	Solid	Solid	Solid	Solid				
Sample Matrix Code	7	7	7	7	7	7				
TPH CWG										
Ali >C5-C6 _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	5	5	4	4	4	2		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	13	15	14	14	12	5		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	29	39	34	37	32	13		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	26	37	32	34	30	10		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	36	45	44	43	40	20		mg/kg	1	A-T-055s
Total Aliphatics _A	109	140	129	131	119	50		mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	2	2	2	2	2	1		mg/kg	1	A-T-055s
Aro >C10-C12 _A	4	4	4	4	3	2		mg/kg	1	A-T-055s
Aro >C12-C16 _A	8	10	9	9	8	4		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	7	9	8	8	7	5		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	8	12	11	11	10	21		mg/kg	1	A-T-055s
Total Aromatics _A	30	38	36	35	31	34		mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	140	178	164	166	150	84		mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client:	BEK Enviro Ltd, Suite One , No 3 Mitton Road Business Park , Mitton Road , Whalley , Lancashire , BB7 9YE	Project No:	21/09690
Project:	Ilk Street, Clayton	Date Received:	07/09/2021 (am)
Clients Project No:		Cool Box Temperatures (°C):	20.6

NO DEVIATIONS IDENTIFIED with respect to sampling dates or containers received.

Note: If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	21/09690/1	21/09690/2	21/09690/3	21/09690/4	21/09690/5	21/09690/6
Client Sample No						
Client Sample ID/Depth	VS-SS1	VS-SS2	VS-SS3	VS-SS4	VS-SS5	VS-SS6
Date Sampled	06/09/21	06/09/21	06/09/21	06/09/21	06/09/21	06/09/21
A-T-019s	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021	14/09/2021
A-T-022s	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021
A-T-024s	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021
A-T-026s	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021
A-T-027s	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021
A-T-028s	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021
A-T-031s	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021
A-T-032 OM	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021
A-T-040s	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021
A-T-042sTCN	10/09/2021	10/09/2021	10/09/2021	10/09/2021	10/09/2021	10/09/2021
A-T-044	15/09/2021	15/09/2021	15/09/2021	15/09/2021	15/09/2021	15/09/2021
A-T-045	09/09/2021	09/09/2021	09/09/2021	09/09/2021	09/09/2021	09/09/2021
A-T-050s	11/09/2021	11/09/2021	11/09/2021	11/09/2021	11/09/2021	11/09/2021
A-T-055s	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021	16/09/2021

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 21/10947
Issue Number: 1

Date: 18 October, 2021

Client: BEK Enviro Ltd
Suite One
No 3 Mitton Road Business Park
Mitton Road
Whalley
Lancashire
BB7 9YE

Project Manager: Mick Buckley
Project Name: Ilk Street, Clayton
Project Ref: N/A
Order No: 7265-19661-J
Date Samples Received: 07/10/21
Date Instructions Received: 08/10/21
Date Analysis Completed: 18/10/21

Prepared by:



Sophie France
Client Service Manager

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 21/10947

Client Project Name: Ilk Street, Clayton

Client Project Ref: N/A

Lab Sample ID	21/10947/1	21/10947/2	21/10947/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-8	VS-TS-9	VS-TS-10							
Depth to Top										
Depth To Bottom										
Date Sampled	06-Oct-21	06-Oct-21	06-Oct-21							
Sample Type	Soil	Soil	Soil							
Sample Matrix Code	6AE	6AE	6AE							
% Stones >10mm _A	0.6	0.9	0.6					% w/w	0.1	A-T-044
pH _D ^{M#}	7.13	7.22	7.18					pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01					g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	770	750	890					mg/kg	200	A-T-028s
Cyanide (total) _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2					mg/kg	0.2	A-T-050s
Organic matter _D ^{M#}	7.9	11.0	12.0					% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	15	14	17					mg/kg	1	A-T-024s
Boron (water soluble) _D	<1.0	<1.0	<1.0					mg/kg	1	A-T-027s
Cadmium _D ^{M#}	0.8	0.8	0.9					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	52	48	56					mg/kg	1	A-T-024s
Chromium _D ^{M#}	17	17	18					mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1					mg/kg	1	A-T-040s
Lead _D ^{M#}	83	82	89					mg/kg	1	A-T-024s
Mercury _D	0.30	0.18	<0.17					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	14	15	16					mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	2	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	72	70	80					mg/kg	5	A-T-024s

Envirolab Job Number: 21/10947

Client Project Name: Ilk Street, Clayton

Client Project Ref: N/A

Lab Sample ID	21/10947/1	21/10947/2	21/10947/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-8	VS-TS-9	VS-TS-10							
Depth to Top										
Depth To Bottom										
Date Sampled	06-Oct-21	06-Oct-21	06-Oct-21							
Sample Type	Soil	Soil	Soil							
Sample Matrix Code	6AE	6AE	6AE							
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD							A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A							A-T-045

Envirolab Job Number: 21/10947

Client Project Name: Ilk Street, Clayton

Client Project Ref: N/A

Lab Sample ID	21/10947/1	21/10947/2	21/10947/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-8	VS-TS-9	VS-TS-10							
Depth to Top										
Depth To Bottom										
Date Sampled	06-Oct-21	06-Oct-21	06-Oct-21							
Sample Type	Soil	Soil	Soil							
Sample Matrix Code	6AE	6AE	6AE							
PAH-16MS										
Acenaphthene _A ^{M#}	0.07	0.10	0.06					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.10	0.15	0.07					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.45	0.57	0.33					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.55	0.54	0.36					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.59	0.60	0.42					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.28	0.25	0.17					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.25	0.24	0.15					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.62	0.67	0.45					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.87	1.12	0.67					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	0.04	0.04	0.03					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.32	0.31	0.21					mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.42	0.65	0.29					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.83	1.01	0.63					mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	5.39	6.25	3.84					mg/kg	0.01	A-T-019s

Envirolab Job Number: 21/10947

Client Project Name: Ilk Street, Clayton

Client Project Ref: N/A

Lab Sample ID	21/10947/1	21/10947/2	21/10947/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-8	VS-TS-9	VS-TS-10							
Depth to Top										
Depth To Bottom										
Date Sampled	06-Oct-21	06-Oct-21	06-Oct-21							
Sample Type	Soil	Soil	Soil							
Sample Matrix Code	6AE	6AE	6AE							
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	1	1	1					mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	18	19	18					mg/kg	1	A-T-055s
Total Aliphatics _A	20	21	20					mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	3	3	1					mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C12-C16 _A	3	3	3					mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	8	7	7					mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	39	33	36					mg/kg	1	A-T-055s
Total Aromatics _A	53	46	47					mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	73	67	67					mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client:	BEK Enviro Ltd, Suite One , No 3 Mitton Road Business Park , Mitton Road , Whalley , Lancashire , BB7 9YE	Project No:	21/10947
Project:	Ilk Street, Clayton	Date Received:	08/10/2021 (am)
Clients Project No:	N/A	Cool Box Temperatures (°C):	16.0

NO DEVIATIONS IDENTIFIED with respect to sampling dates or containers received.

Note: If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	21/10947/1	21/10947/2	21/10947/3
Client Sample No			
Client Sample ID/Depth	VS-TS-8	VS-TS-9	VS-TS-10
Date Sampled	06/10/21	06/10/21	06/10/21
A-T-019s	12/10/2021	12/10/2021	12/10/2021
A-T-022s	14/10/2021	14/10/2021	14/10/2021
A-T-024s	15/10/2021	15/10/2021	15/10/2021
A-T-026s	14/10/2021	14/10/2021	14/10/2021
A-T-027s	14/10/2021	14/10/2021	14/10/2021
A-T-028s	15/10/2021	15/10/2021	15/10/2021
A-T-031s	18/10/2021	18/10/2021	18/10/2021
A-T-032 OM	17/10/2021	17/10/2021	17/10/2021
A-T-040s	14/10/2021	14/10/2021	14/10/2021
A-T-042sTCN	15/10/2021	15/10/2021	15/10/2021
A-T-044	13/10/2021	13/10/2021	13/10/2021
A-T-045	12/10/2021	12/10/2021	12/10/2021
A-T-050s	13/10/2021	13/10/2021	13/10/2021
A-T-055s	14/10/2021	14/10/2021	14/10/2021

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

ANNEX C

Validation Photographs



GEO-ENVIRONMENTAL CONSULTING ENGINEERS

bEk Enviro Ltd

Suite One | No 3 Mitton Road Business Park
Mitton Road | Whalley | Lancashire | BB7 9YE

01254 377622

mbuckley@bekenviro.co.uk | bekenviro.co.uk



Photograph 1: Validation of Garden Capping Thickness



Photograph 2: Validation of Garden Capping Thickness



GEO-ENVIRONMENTAL CONSULTING ENGINEERS

bEk Enviro Ltd

Suite One | No 3 Mitton Road Business Park
Mitton Road | Whalley | Lancashire | BB7 9YE

01254 377622

mbuckley@bekenviro.co.uk | bekenviro.co.uk



Photograph 3: Validation of Geotextile Membrane