



GEO-ENVIRONMENTAL CONSULTING

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OLDHAM ROAD, NEWTON HEATH

Remediation Verification Report



Prepared for:

Report Ref: BEK-23007-2



March 2024



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Project Quality Assurance Information Sheet

Site	Oldham Road, Newton Heath
Report Title	Remediation Verification Report
Report Status	Final
Report No	BEK-23007-2
Date	March 2024
Prepared For	THE CASEY GROUP LIMITED Rydings Road Rochdale OL12 9PS
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OLDHAM ROAD, NEWTON HEATH

Remediation Verification Report

PROJECT NO: 23007

REPORT REF: BEK-23007-2

DATE: March 2024

REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked

GENERAL REPORT LIMITATIONS

BEK Enviro Limited (BEK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and BEK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of BEK and the party for whom it was prepared. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client. The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.



GEO-ENVIRONMENTAL CONSULTING

TABLE OF CONTENTS

1.	INTRODUCTION
1.1	Background
1.2	Limitations
2.	REMEDIATION STRATEGY
2.1	Contamination
2.2	Imported Material
2.3	Construction Workers
2.4	Unforeseen Circumstances
2.5	Utilities
2.6	Concrete Mix Design
2.7	Off-Site Disposal
2.8	Re-Use of Waste Soils on Site
3.	VERIFICATION OF WORKS
3.1	Supervision of Works
3.2	Capping System
3.3	Unrecorded Contamination & Associated Issues
4.	CONCLUSIONS

APPENDICES	
Appendix A	Certificates of Completion
Appendix B	Public Open Space Validation Letter
Appendix C	Source Test Results
Appendix D	BEK Validation Samples Test Results
Appendix E	Validation Photographs

1. INTRODUCTION

1.1 Background

1.1.1 BEK Enviro (BEK) has been commissioned by The Casey Group (CG) to produce a Verification Report for the completion of the remediation works required at the residential development at Oldham Road, Newton Heath (hereafter referred to as 'the site').

1.1.2 Manchester City Council has granted planning permission (subject to conditions) for the 'erection of 39 two and three storey dwelling houses (Use Class C3a) along with associated access, landscaping, boundary treatment and car parking' at the site at Land off Oldham Road (A62), Manchester (Application No: 125990/FO/2020).

1.1.3 The site has been subjected to previous site investigation, assessments and reporting, the details of which are provided within the following reports:

- Curtins – Ground Investigation – Oldham Road, Newton Heath – Ref: 074031-CUR-00-XX-RP-GE-002-V03, dated 16 March 2021.
- BEK – Remediation Method Statement – Oldham Road, Newton Heath (Ref: BEK-23007-1, dated February 2023).

1.1.4 The above reports have been submitted to and approved by Manchester City Council as required. The specific remediation measures recommended in the BEK Remediation Method Statement (RMS) have been implemented and the RMS should be read in conjunction with this report.

1.1.5 The proposed development is shown as Figure 1 below.



Figure 1: Proposed Development Layout



1.2 Limitations

- 1.2.1 This report has been prepared by BEK for the sole benefit of The Casey Group Limited. The conclusions in this report are professional opinions of BEK based on the information available.
- 1.2.2 This document has been prepared for the residential development located at off Oldham Road, Newton Heath and should not be relied upon or used for any other project. BEK accepts no responsibility or liability for the consequences of this document being used for a purpose other than that purpose for which it was commissioned.

2. REMEDIATION STRATEGY

2.0.1 The approved remediation works are detailed in the RMS (Report Ref: BEK-23007-1, dated February 2023).

2.0.2 In order to remove potential risks associated with contamination, specific remediation works have been recommended.

2.1 Contamination

2.1.1 Human health risks associated with the presence of elevated lead were detected during the Curtins site investigation.

2.1.2 To mitigate the potential risks to human health associated with the lead impacted soils it is recommended:

All rear garden areas will be capped with a minimum of 600 mm of clean suitable soil (450 mm subsoil and 150 mm topsoil) and 450 mm cover thickness within front gardens and landscaped areas. The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile marker membrane to prevent mixing.

2.2 Imported Material

2.2.1 It is likely that the soils to be used in the clean capping will be imported. The suitability of the sub/topsoil should be independently validated to ensure a suitability for use.

2.3 Construction Workers

2.3.1 It is recommended that construction personnel involved with direct contact with the soils at the site use appropriate PPE equipment (i.e. boots, gloves and overalls).

2.3.2 In addition, hygiene facilities should be made available in accordance with general health and safety guidelines. The successful remediation/site works contractor should undertake a suitable Risk Assessment to confirm the appropriate level of PPE.

2.3.3 A copy of all reports relating to the site should be included in the site Health & Safety File and site workers should be made fully aware of the sites setting.

2.4 Unforeseen Circumstances

2.4.1 Any areas of previously unidentified potentially contaminated soils encountered during site construction works must be brought to the attention of BEK, to ensure that the recommendations herein apply. Any potentially contaminated soils should be left in-situ and subjected to further assessment, to potentially include further chemical testing and risk assessment.

2.5 Utilities

- 2.5.1 Prior to redevelopment of the site, BEK would recommend that a copy of this report and the previous reports (prepared by Curtins) relating to the site are supplied to utility companies, and that their recommendations relating to appropriate supply pipes are adhered to.
- 2.5.2 A UKWIR Risk Assessment has been prepared by BEK for the site which recommends standard PE water pipes are suitable for the site.

2.6 Concrete Mix Design

- 2.6.1 BEK recommends that as a minimum the design sulphate class for the site should be designed for DS-1 conditions and ACEC class AC-1.
- 2.6.2 Confirmation that the correct concrete mix has been used on site is outside the BEK validation remit.

2.7 Off-Site Disposal

- 2.7.1 The chemical testing regime for off-site disposal may be different to the chemical testing required to assess the suitability of the soils for retention on site and the risks to human health. Therefore, additional assessment may be required to classify the soils for off-site disposal with testing criteria to assess whether the soil is hazardous, non-hazardous or inert waste. However, existing laboratory test certificates will help inform the process. Any additional testing (principally for asbestos) should also be used in the classification of the waste soils for off-site disposal.
- 2.7.2 The receiving landfill may require additional specialist laboratory testing to further characterise the material proposed for disposal against Waste Acceptance Criteria (WAC). We would recommend early consultation between the Contractor and the receiving landfill to determine any specific laboratory testing requirements.
- 2.7.3 Individuals/companies removing soils from the site are bound by a duty of care and as such this should only be undertaken by an authorised person. All waste movements should be accompanied by a waste transfer note.

2.8 Re-Use of Waste Soils on Site

- 2.8.1 The re-use of waste soils generated at the site should be covered though environmental permit exemptions (if applicable) and/or through the preparation of a Material Management Plan as part of compliance with the Definition of Waste: Code of Practice (DoW:CoP).
- 2.8.2 The re-use of any site won material will require an assessment to confirm a certainty of use.

3. VERIFICATION OF WORKS

3.1 Supervision of Works

3.1.1 An Engineer from BEK attended the site as requested by CG during the remediation works which were undertaken progressively. Regular liaison with CG during the works ensured a presence during key activities.

3.2 Capping System

3.2.1 Following the recommendations within the RMS, a capping system comprising topsoil has been installed to a depth of 600 mm in gardens and 450 mm in soft landscaped areas. The capping system was placed on a geotextile marker layer.

3.2.2 A selection of certificates of completion are presented in Appendix A. All certificates can be made available upon request.

Imported Soil

3.2.3 CG imported approximately 76.5 m³ of topsoil and 229.5 m³ of subsoil, both sourced from 'Marchingtons Stone Limited'. Marchingtons imported the topsoil and subsoil as a product that was a blend of greenfield and brownfield soils with the appearance of clean suitable soil.

3.2.4 The imported soils were subject to testing and assessment by BEK to confirm suitability prior to importation. Information regarding the source of imported soils used at the site can be seen in Table 1 below. The source test results are presented in Appendix C. A review of this data confirms the both imported soils are suitable for use.

Source & Source Number	Volume	Description	Plots Used	Sample Names & Source Test Data Reference
Marchingtons Topsoil	76.5 m ³	dark brown silty sand with occasional fine to coarse angular to rounded gravel	1-39	VS-TS-A to VS-TS-F VS-TS-6 to VS-TS-12
Marchingtons Subsoil	229.5 m ³	brown sandy slightly silty clay with frequent fine to coarse gravels	1-39	SS1 to SS12

Table 1: Imported Topsoil and Subsoil Information

3.2.5 The imported topsoil and subsoil were also subjected to validation testing and assessment on site in accordance with the RMS. To comply with the recommendations presented in the RMS, it was necessary to recover validation samples at a rate no less than '1 sample per 100 m³' of emplaced soils. BEK recovered a total of 12 topsoil and subsoil samples for chemical testing.

- 3.2.6 The samples were tested for the contaminants of concern listed in the RMS. Following a review of the chemical test results, no elevations against human health thresholds were identified and the soils are confirmed to be suitable for use in private gardens and shared landscaped areas of the site. Copies of these test results are presented in Appendix D.
- 3.2.7 Capping layer thickness was checked by BEK within the garden areas and public open spaces to ensure the required thickness has been achieved. The validation of these private gardens was done on a plot-by-plot basis.
- 3.2.8 This was undertaken by dipping of a pre-placed measuring pipe or the excavation of hand dug trial holes to ensure the correct construction of the capping system (including the presence of the geotextile membrane) and confirm capping thickness.
- 3.2.9 The presence of geotextile membrane was confirmed at the base of the pre-placed measuring pipes within each of the plots during our visits, although photos fail to show it, BEK engineers confirmed it's presence.
- 3.2.10 See photographs in Appendix E.
- 3.2.11 On completion of the verification for the capping system in each plot, BEK prepared a Certificate of Completion for that plot.
- 3.2.12 Certificates of Completion are available for each plot. A selection of certificates presented in Appendix A for information. All certificates can be made available upon request.
- 3.2.13 Certificate of verification for the capping system for all Public Open Spaces (POS) is presented in Appendix B.
- 3.3 Unrecorded Contamination & Associated Issues**
- 3.3.1 The groundworkers did not report any visual or olfactory evidence of contamination impacted soils during any excavations.



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4. CONCLUSIONS

- 4.1 BEK has supervised the implementation of the remediation works for the development at land at Oldham Road, Newton Heath.
- 4.2 The works have been carried out by The Casey Group Limited and their appointed contractors, in accordance with the approved recommendations.
- 4.3 Based on the information herein, the remediation works have been completed in accordance with the approved Remediation Method Statement.

APPENDIX A

Certificates of Completion

Our Ref: BEK/23007/240212/CG/1

27th February 2024

FAO Oliver Lord
The Casey Group
Rydings Road
Rochdale
OL12 9PS

Dear Oliver,

Garden Capping Validation Letter for Residential Development at Oldham Road, Newton Heath - PLOT 1

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

The approved remediation works are detailed in the BEK Remediation Method Statement, Report Ref: BEK-23007-1, dated February 2023.

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

'All garden/landscaping areas or capped with clean, inert sub/topsoil suitable for use. It is considered that a minimum of 600 mm cover thickness within rear gardens and 450 mm cover thickness within front gardens and landscaped areas. The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile marker membrane to prevent mixing.'

Following a review of the information it was determined that a capping system comprising both of topsoil and subsoil to a minimum 600 mm thick with a high visibility geotextile at the base could be utilised within private gardens at the site.

Remediation activities have been supervised by both BEK and CG. BEK has confirmed that the soils are suitable for use (prior to placement) and carried out checks to confirm that the correct capping thickness and geotextile membrane have been achieved. BEK has relied on CG and their appointed contractors to cap the gardens with the validated capping soils.

Topsoil and subsoil used within the gardens comprises of imported soils by CG as a product from Marchington Stone Limited. Source test data has been made available to BEK confirms that the Marchington soils are suitable for use in a residential garden. A copy of the source test data is provided within Annex A.

To ensure suitability (and to comply with testing frequency requirements), BEK inspected the Marchingtons soils placed in each of the plots and recovered representative samples for chemical testing. The topsoil is described as 'dark brown silty sand with occasional fine to coarse angular to

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rounded gravel' and the subsoil described as 'brown sandy slightly silty clay with frequent fine to coarse gravels' and are visually suitable for use. BEK has recovered a number of samples from the placed soils and copies of the chemical test results for the most recent samples tested (VS-TS-7 to VS-TS-12 and SS7 to SS12) are presented in Annex B.

Additional samples will be recovered progressively as the remediation works continue. Regular liaison with site managers will be maintained to ensure sample frequencies are maintained progressively throughout the works. Final volumes will be provided for imported topsoil at the end of the project.

In addition to confirming suitability of the soils used in the garden capping system at the site, BEK also confirms that that capping thickness is a minimum of 600 mm thick. CG confirm that a geotextile membrane has been placed at the base of the capping layer. Spot checks carried out by BEK on selected plots prove the presence of the geotextile membrane. Photographs showing capping thickness are provided within Annex C.

Based on the information provided by CG and the validation works carried out by BEK, we can confirm that the remediation works required for Plot 1 at the residential development at Oldham Road Newton Heath has been completed in accordance with the approved methodology. This Certificate should be read in conjunction with the final Validation Report that will be prepared on completion of all remediation works at the site.

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



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ANNEX A

Source Test Data

Jeff Dean Barcal
 Marchington Stone Ltd
 105 Buxton Road
 High Lane
 Stockport
 Cheshire
 SK6 8DX

i2 Analytical Ltd.
 7 Woodshots Meadow,
 Croxley Green
 Business Park,
 Watford,
 Herts,
 WD18 8YS

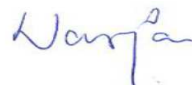
t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e:

Analytical Report Number : 22-86313

Project / Site name:	MSSHQ	Samples received on:	26/09/2022
Your job number:	SUB SOIL	Samples instructed on/ Analysis started on:	26/09/2022
Your order number:	MSSHQ 23 9 22	Analysis completed by:	10/10/2022
Report Issue Number:	1	Report issued on:	10/10/2022
Samples Analysed:	1 soil sample		

Signed:



Dominika Warjan
 Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-86313
Project / Site name: MSSHQ
Your Order No: MSSHQ 23 9 22

Lab Sample Number					2437376
Sample Reference					MSSHQ SUB SOIL
Sample Number					None Supplied
Depth (m)					None Supplied
Date Sampled					23/09/2022
Time Taken					0935
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	
Moisture Content	%	0.01	NONE	7.7	
Total mass of sample received	kg	0.001	NONE	1.8	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	LFT

General Inorganics

Organic Matter (automated)	%	0.1	MCERTS	0.4
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	3.5
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (III)	mg/kg	1	NONE	17
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	7.9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	46

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0

Analytical Report Number: 22-86313

Project / Site name: MSSHQ

Your Order No: MSSHQ 23 9 22

Lab Sample Number	2437376			
Sample Reference	MSSHQ SUB SOIL			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	23/09/2022			
Time Taken	0935			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 _{EH,CU,1D,AL}	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH,CU,1D,AL}	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC35 - EC40 _{EH,CU,1D,AL}	mg/kg	10	NONE	< 10
TPH-CWG - Aliphatic (EC5 - EC35) _{EH,CU+HS,1D,AL}	mg/kg	10	MCERTS	< 10

TPH-CWG - Aromatic >EC5 - EC7 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 _{EH,CU,1D,AR}	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 _{EH,CU,1D,AR}	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC35 - EC40 _{EH,CU,1D,AR}	mg/kg	10	NONE	< 10
TPH-CWG - Aromatic (EC5 - EC35) _{EH,CU+HS,1D,AR}	mg/kg	10	MCERTS	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2437376	ISSHQ SUB SOIL	None Supplied	None Supplied	Brown clay and loam with gravel.

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
GC	Gas Chromatography				
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))				
CU	Clean-up - e.g. by Florisil®, silica gel				
1D	GC - Single coil/column gas chromatography				
2D	GC-GC - Double coil/column gas chromatography				
Total	Aliphatics & Aromatics				
AL	Aliphatics				
AR	Aromatics				
#1	EH_2D_Total but with humics mathematically subtracted				
#2	EH_2D_Total but with fatty acids mathematically subtracted				
-	Operator - understore to separate acronyms (exception for +)				
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total				

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 23/09477/2

Amendments: Request for split report

Envirolab Job Number: 23/09477
Issue Number: 2-S2
Date: 09 October, 2023

Client: Marchington Stone Ltd
105 Buxton Road
High Lane
Stockport
SK6 8DX

Project Manager:
Project Name: MSSR
Project Ref: Not specified
Order No: KL2509
Date Samples Received: 25/09/23
Date Instructions Received: 25/09/23
Date Analysis Completed: 06/10/23

Approved by:

A handwritten signature in black ink, appearing to read "Gemma Berrisford".

Gemma Berrisford
Deputy Client Services Supervisor

Envirolab Job Number: 23/09477/2

Client Project Name: MSSR

Client Project Ref: Not specified

Lab Sample ID	23/09477/2							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	25-Sep-23									
Sample Type	SOIL - ES									
Sample Matrix Code	5A									
% Stones >10mm _A	6.8							% w/w	0.1	A-T-044
pH ₀ ^{MS}	8.5							pH	0.01	A-T-031a
Sulphate (water sol 2:1) _D ^{MS}	0.24							g/l	0.01	A-T-026a
Arsenic ₀ ^{MS}	8							mg/kg	1	A-T-024a
Cadmium ₀ ^{MS}	0.7							mg/kg	0.5	A-T-024a
Copper ₀ ^{MS}	36							mg/kg	1	A-T-024a
Chromium ₀ ^{MS}	29							mg/kg	1	A-T-024a
Lead ₀ ^{MS}	69							mg/kg	1	A-T-024a
Mercury ₀	0.29							mg/kg	0.17	A-T-024a
Nickel ₀ ^{MS}	15							mg/kg	1	A-T-024a
Selenium ₀ ^{MS}	<1							mg/kg	1	A-T-024a
Zinc ₀ ^{MS}	96							mg/kg	5	A-T-024a

Envirolab Job Number: 23/09477

Client Project Name: MSSR

Client Project Ref: Not specified

Lab Sample ID	23/09477/2							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	25-Sep-23									
Sample Type	SOIL - ES									
Sample Matrix Code	5A									
PAH-16MS										
Acenaphthene _A ^{MS}	0.10							mg/kg	0.01	A-T-015a
Acenaphthylene _A ^{MS}	0.03							mg/kg	0.01	A-T-015a
Anthracene _A ^{MS}	0.19							mg/kg	0.02	A-T-015a
Benzo(a)anthracene _A ^{MS}	0.94							mg/kg	0.04	A-T-015a
Benzo(a)pyrene _A ^{MS}	1.04							mg/kg	0.04	A-T-015a
Benzo(b)fluoranthene _A ^{MS}	1.37							mg/kg	0.05	A-T-015a
Benzo(ghi)perylene _A ^{MS}	0.54							mg/kg	0.05	A-T-015a
Benzo(k)fluoranthene _A ^{MS}	0.46							mg/kg	0.07	A-T-015a
Chrysene _A ^{MS}	1.03							mg/kg	0.06	A-T-015a
Dibenzo(ah)anthracene _A	0.12							mg/kg	0.04	A-T-015a
Fluoranthene _A ^{MS}	1.61							mg/kg	0.08	A-T-015a
Fluorene _A ^{MS}	0.07							mg/kg	0.01	A-T-015a
Indeno(123-cd)pyrene _A ^{MS}	0.64							mg/kg	0.03	A-T-015a
Naphthalene _A ^{MS}	0.06							mg/kg	0.03	A-T-015a
Phenanthrene _A ^{MS}	0.77							mg/kg	0.03	A-T-015a
Pyrene _A ^{MS}	1.56							mg/kg	0.07	A-T-015a
Total PAH-16MS _A	10.5							mg/kg	0.01	A-T-015a

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 within the same delivery, will be disposed of **six weeks** after the 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 our scope of accreditation.

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

A deviating sample 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.

Key

Superscript "S"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.

Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require 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: Marchington Stone Ltd, 105 Buxton Road, High Lane, Stockport SK6 8DX

Project No: 23/09477

Project: MSSR

Date Received: 25/09/2023 (am)

Clients Project No:

Cool Box Temperatures (°C): 14.7

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	23/09477/1	23/09477/2	23/09477/3	23/09477/4
Client Sample No				
Client Sample ID/Depth	6F2	Screened Soil	Subsoil	As Dug Topsoil
Date Sampled	25/09/23	25/09/23	25/09/23	25/09/23
A-T-007s			05/10/2023	
A-T-019s		05/10/2023	05/10/2023	05/10/2023
A-T-024s		05/10/2023	05/10/2023	05/10/2023
A-T-026s	05/10/2023	05/10/2023	05/10/2023	05/10/2023
A-T-028s	06/10/2023			
A-T-031s	04/10/2023	04/10/2023	05/10/2023	05/10/2023
A-T-044	06/10/2023	06/10/2023	06/10/2023	06/10/2023
A-T-045	27/09/2023			

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



BEK Geo-Environmental Consulting

No.2 Landwick Court, Metcalf Drive, Altham Business Park,
Lancashire BB5 5TU

mbuckley@bekenviro.co.uk

bekenviro.co.uk

01254 377622

ANNEX B

Chemical Test Results

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/01047
Issue Number: 1

Date: 15 February, 2024

Client: BEK Enviro Ltd
2 Landwick Court
Metcalf Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: Mick Buckley/James Mashiter
Project Name: Oldham Road, Newton Heath
Project Ref: Not specified
Order No: 8077-23007-MLM
Date Samples Received: 01/02/24
Date Instructions Received: 02/02/24
Date Analysis Completed: 15/02/24

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 24/01047

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6		Units	Limit of Detection	Method ref
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12				
Client Sample ID										
Depth to Top										
Depth To Bottom										
Date Sampled	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4A	4A	4A	4A	4A	4A				
% Stones >10mm _A	15.6	9.6	13.0	6.0	21.2	3.3		% w/w	0.1	A-T-044
pH _D ^{M#}	6.77	6.73	6.53	6.52	6.39	6.54		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	<200	<200	<200	<200	<200	<200		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#}	0.7	0.6	0.7	3.0	0.6	0.8		% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	11	11	11	10	9	11		mg/kg	1	A-T-024s
Chromium _D ^{M#}	24	24	23	24	20	23		mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead _D ^{M#}	9	11	10	9	9	11		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#}	20	21	20	20	18	20		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	45	48	45	59	42	49		mg/kg	5	A-T-024s

Envirolab Job Number: 24/01047

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6		Units	Limit of Detection	Method ref
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12				
Client Sample ID										
Depth to Top										
Depth To Bottom										
Date Sampled	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4A	4A	4A	4A	4A	4A				
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-	-	-				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: 24/01047

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6		Units	Limit of Detection	Method ref
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12				
Client Sample ID										
Depth to Top										
Depth To Bottom										
Date Sampled	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4A	4A	4A	4A	4A	4A				
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		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	<0.04		mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		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	<0.06		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<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	<0.08		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	<0.03		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#}	<0.03	<0.03	<0.03	<0.03	<0.03	0.04		mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		mg/kg	0.07	A-T-019s
Total PAH-16MS _A	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08		mg/kg	0.01	A-T-019s

Envirolab Job Number: 24/01047

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6		Units	Limit of Detection	Method ref
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12				
Client Sample ID										
Depth to Top										
Depth To Bottom										
Date Sampled	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4A	4A	4A	4A	4A	4A				
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	2	1	2	2	2	2		mg/kg	1	A-T-055s
Total Aliphatics _A	2	1	2	2	2	2		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	<1	<1	<1	<1		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	2	1	2	2	2	2		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s

Report Notes

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 Analytical results reflect the quality of the sample at the time of analysis only.
 Opinions and Interpretations expressed are outside our scope of accreditation.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 A deviating sample 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.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
 Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.
 Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: BEK Enviro Ltd, 2 Landwick Court, Metcalfe Drive, Altham Business Park,
Altham, Lancashire , BB5 5GY

Project: Oldham Road, Newton Heath

Clients Project No:

Project No: 24/01047

Date Received: 02/02/2024 (am)

Cool Box Temperatures (°C): 8.2

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.

Envirolab Analysis Dates

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12
Client Sample ID/Depth						
Date Sampled	01/02/24	01/02/24	01/02/24	01/02/24	01/02/24	01/02/24
A-T-019s	08/02/2024	08/02/2024	08/02/2024	08/02/2024	08/02/2024	08/02/2024
A-T-022s	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024
A-T-024s	12/02/2024	12/02/2024	12/02/2024	15/02/2024	12/02/2024	12/02/2024
A-T-026s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-027s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-028s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-031s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-032s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-040s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-042sTCN	08/02/2024	08/02/2024	08/02/2024	08/02/2024	08/02/2024	08/02/2024
A-T-044	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-045	07/02/2024	07/02/2024	07/02/2024	07/02/2024	07/02/2024	07/02/2024
A-T-050s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-055s	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024
Calc-As Recd	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024

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

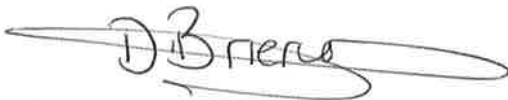
Envirolab Job Number: 24/00651
Issue Number: 1

Date: 01 February, 2024

Client: BEK Enviro Ltd
2 Landwick Court
Metcalf Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: Mick Buckley/James Mashiter
Project Name: Oldham Road, Newton Heath
Project Ref: Not specified
Order No: 8060-23007-MLM
Date Samples Received: 24/01/24
Date Instructions Received: 24/01/24
Date Analysis Completed: 01/02/24

Approved by:



Danielle Brierley
Client Services Supervisor

Envirolab Job Number: 24/00651

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12				
Depth to Top										
Depth To Bottom										
Date Sampled	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6A	6E	6AE	6	6	6				
% Stones >10mm _A	<0.1	<0.1	5.4	<0.1	<0.1	<0.1		% w/w	0.1	A-T-044
pH _D ^{M#}	7.07	6.86	7.22	7.45	7.02	6.77		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	0.08	0.06	<0.01	<0.01		g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	230	220	450	400	210	220		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#}	3.2	2.8	3.8	2.8	2.9	3.0		% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	4	4	4	4	4	4		mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	25	26	24	23	22	28		mg/kg	1	A-T-024s
Chromium _D ^{M#}	17	18	16	16	15	17		mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead _D ^{M#}	56	57	47	48	49	56		mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	0.35	0.22	<0.17	0.33		mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	13	14	12	15	12	13		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	41	42	47	45	36	41		mg/kg	5	A-T-024s

Envirolab Job Number: 24/00651

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12				
Depth to Top										
Depth To Bottom										
Date Sampled	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6A	6E	6AE	6	6	6				
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-	-	-				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: 24/00651

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12				
Depth to Top										
Depth To Bottom										
Date Sampled	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6A	6E	6AE	6	6	6				
PAH-16MS										
Acenaphthene _A ^{M#}	0.05	0.01	0.03	0.15	0.02	0.04		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#}	0.07	<0.02	0.08	0.35	0.04	0.05		mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.27	0.07	0.35	0.96	0.19	0.27		mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.28	0.08	0.45	0.90	0.19	0.29		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.27	0.08	0.46	0.91	0.18	0.30		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.15	<0.05	0.26	0.50	0.12	0.18		mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.11	<0.07	0.18	0.37	<0.07	0.12		mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.33	0.09	0.41	1.10	0.24	0.36		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<0.04	<0.04	0.04	0.09	<0.04	<0.04		mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.46	0.13	0.63	1.78	0.32	0.44		mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	0.02	<0.01	0.02	0.14	0.01	0.02		mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.15	<0.03	0.30	0.53	0.11	0.18		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#}	0.35	0.09	0.25	1.31	0.19	0.26		mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.45	0.14	0.59	1.55	0.32	0.47		mg/kg	0.07	A-T-019s
Total PAH-16MS _A	2.96	0.69	4.05	10.6	1.93	2.98		mg/kg	0.01	A-T-019s

Envirolab Job Number: 24/00651

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12				
Depth to Top										
Depth To Bottom										
Date Sampled	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6A	6E	6AE	6	6	6				
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	2	2	25	15	4	5		mg/kg	1	A-T-055s
Total Aliphatics _A	2	2	26	15	4	5		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<2	<2	<2	<2	<2	<2		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	4	1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	1	2	45	6	2	4		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	6	7	91	26	9	11		mg/kg	1	A-T-055s
Total Aromatics _A	7	9	141	33	12	14		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	9	12	167	48	15	19		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<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 within the same delivery, will be disposed of **four weeks** after the 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 our scope of accreditation.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 A deviating sample 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.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
 Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.
 Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: BEK Enviro Ltd, 2 Landwick Court, Metcalfe Drive, Altham Business Park,
Altham, Lancashire , BB5 5GY

Project: Oldham Road, Newton Heath

Clients Project No:

Project No: 24/00651

Date Received: 24/01/2024 (am)

Cool Box Temperatures (°C): 10.3

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.

Envirolab Analysis Dates

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6
Client Sample No						
Client Sample ID/Depth	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12
Date Sampled	22/01/24	22/01/24	22/01/24	22/01/24	22/01/24	22/01/24
A-T-019s	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024
A-T-022s	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024
A-T-024s	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-026s	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-027s	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-028s	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-031s	01/02/2024	01/02/2024	01/02/2024	01/02/2024	01/02/2024	01/02/2024
A-T-032s	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-040s	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-042sTCN	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024
A-T-044	26/01/2024	26/01/2024	26/01/2024	26/01/2024	26/01/2024	26/01/2024
A-T-045	25/01/2024	25/01/2024	25/01/2024	25/01/2024	25/01/2024	25/01/2024
A-T-050s	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-055s	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
Calc-As Recd	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024

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



BEK Geo-Environmental Consulting

No.2 Landwick Court, Metcalf Drive, Altham Business Park,
Lancashire BB5 5TU

mbuckley@bekenviro.co.uk

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01254 377622

ANNEX C

Photographs



GEO-ENVIRONMENTAL CONSULTING

BEK Geo-Environmental Consulting

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Photograph 1: Validation of Garden Capping



Photograph 2: Validation of Garden Capping

Our Ref: BEK/23007/240312/CG/10

12th March 2024

FAO Oliver Lord
The Casey Group
Rydings Road
Rochdale
OL12 9PS

Dear Oliver,

Garden Capping Validation Letter for Residential Development at Oldham Road, Newton Heath - PLOT 10

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

The approved remediation works are detailed in the BEK Remediation Method Statement, Report Ref: BEK-23007-1, dated February 2023.

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

'All garden/landscaping areas or capped with clean, inert sub/topsoil suitable for use. It is considered that a minimum of 600 mm cover thickness within rear gardens and 450 mm cover thickness within front gardens and landscaped areas. The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile marker membrane to prevent mixing.'

Following a review of the information it was determined that a capping system comprising both of topsoil and subsoil to a minimum 600 mm thick with a high visibility geotextile at the base could be utilised within private gardens at the site.

Remediation activities have been supervised by both BEK and CG. BEK has confirmed that the soils are suitable for use (prior to placement) and carried out checks to confirm that the correct capping thickness and geotextile membrane have been achieved. BEK has relied on CG and their appointed contractors to cap the gardens with the validated capping soils.

Topsoil and subsoil used within the gardens comprises of imported soils by CG as a product from Marchington Stone Limited. Source test data has been made available to BEK confirms that the Marchington soils are suitable for use in a residential garden. A copy of the source test data is provided within Annex A.

To ensure suitability (and to comply with testing frequency requirements), BEK inspected the Marchingtons soils placed in each of the plots and recovered representative samples for chemical testing. The topsoil is described as 'dark brown silty sand with occasional fine to coarse angular to

**BEK Geo-Environmental Consulting**

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GEO-ENVIRONMENTAL CONSULTING

rounded gravel' and the subsoil described as 'brown sandy slightly silty clay with frequent fine to coarse gravels' and are visually suitable for use. BEK has recovered a number of samples from the placed soils and copies of the chemical test results for the most recent samples tested (VS-TS-7 to VS-TS-12 and SS7 to SS12) are presented in Annex B.

Additional samples will be recovered progressively as the remediation works continue. Regular liaison with site managers will be maintained to ensure sample frequencies are maintained progressively throughout the works. Final volumes will be provided for imported topsoil at the end of the project.

In addition to confirming suitability of the soils used in the garden capping system at the site, BEK also confirms that that capping thickness is a minimum of 600 mm thick. CG confirm that a geotextile membrane has been placed at the base of the capping layer. Spot checks carried out by BEK on selected plots prove the presence of the geotextile membrane. Photographs showing capping thickness are provided within Annex C.

Based on the information provided by CG and the validation works carried out by BEK, we can confirm that the remediation works required for Plot 10 at the residential development at Oldham Road Newton Heath has been completed in accordance with the approved methodology. This Certificate should be read in conjunction with the final Validation Report that will be prepared on completion of all remediation works at the site.

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



BEK Geo-Environmental Consulting

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ANNEX A

Source Test Data

Jeff Dean Barcal
Marchington Stone Ltd
105 Buxton Road
High Lane
Stockport
Cheshire
SK6 8DX

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e:

Analytical Report Number : 22-86313

Project / Site name:	MSSHQ	Samples received on:	26/09/2022
Your job number:	SUB SOIL	Samples instructed on/ Analysis started on:	26/09/2022
Your order number:	MSSHQ 23 9 22	Analysis completed by:	10/10/2022
Report Issue Number:	1	Report issued on:	10/10/2022
Samples Analysed:	1 soil sample		


Signed:

Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-86313
Project / Site name: MSSHQ
Your Order No: MSSHQ 23 9 22

Lab Sample Number					2437376
Sample Reference					MSSHQ SUB SOIL
Sample Number					None Supplied
Depth (m)					None Supplied
Date Sampled					23/09/2022
Time Taken					0935
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	
Moisture Content	%	0.01	NONE	7.7	
Total mass of sample received	kg	0.001	NONE	1.8	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	LFT

General Inorganics

Organic Matter (automated)	%	0.1	MCERTS	0.4
----------------------------	---	-----	--------	-----

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
-----------------------------	-------	-----	--------	--------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	3.5
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (III)	mg/kg	1	NONE	17
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	7.9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	46

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0

Analytical Report Number: 22-86313

Project / Site name: MSSHQ

Your Order No: MSSHQ 23 9 22

Lab Sample Number	2437376			
Sample Reference	MSSHQ SUB SOIL			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	23/09/2022			
Time Taken	0935			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 _{EH,CU,1D,AL}	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH,CU,1D,AL}	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC35 - EC40 _{EH,CU,1D,AL}	mg/kg	10	NONE	< 10
TPH-CWG - Aliphatic (EC5 - EC35) _{EH,CU+HS,1D,AL}	mg/kg	10	MCERTS	< 10

TPH-CWG - Aromatic >EC5 - EC7 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 _{EH,CU,1D,AR}	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 _{EH,CU,1D,AR}	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC35 - EC40 _{EH,CU,1D,AR}	mg/kg	10	NONE	< 10
TPH-CWG - Aromatic (EC5 - EC35) _{EH,CU+HS,1D,AR}	mg/kg	10	MCERTS	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2437376	ISSHQ SUB SOIL	None Supplied	None Supplied	Brown clay and loam with gravel.

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
GC	Gas Chromatography				
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))				
CU	Clean-up - e.g. by Florisil®, silica gel				
1D	GC - Single coil/column gas chromatography				
2D	GC-GC - Double coil/column gas chromatography				
Total	Aliphatics & Aromatics				
AL	Aliphatics				
AR	Aromatics				
#1	EH_2D_Total but with humics mathematically subtracted				
#2	EH_2D_Total but with fatty acids mathematically subtracted				
-	Operator - understore to separate acronyms (exception for +)				
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total				

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 23/09477/2

Amendments: Request for split report

Envirolab Job Number: 23/09477
Issue Number: 2-S2
Date: 09 October, 2023

Client: Marchington Stone Ltd
105 Buxton Road
High Lane
Stockport
SK6 8DX

Project Manager:
Project Name: MSSR
Project Ref: Not specified
Order No: KL2509
Date Samples Received: 25/09/23
Date Instructions Received: 25/09/23
Date Analysis Completed: 06/10/23

Approved by:

A handwritten signature in black ink, appearing to read "Gemma Berrisford".

Gemma Berrisford
Deputy Client Services Supervisor

Envirolab Job Number: 23/09477/2

Client Project Name: MSSR

Client Project Ref: Not specified

Lab Sample ID	23/09477/2									
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	25-Sep-23									
Sample Type	SOIL - ES									
Sample Matrix Code	5A									
% Stones >10mm _A	6.8							% w/w	0.1	A-T-044
pH ₀ ^{MS}	8.5							pH	0.01	A-T-031a
Sulphate (water sol 2:1) ₀ ^{MS}	0.24							g/l	0.01	A-T-026a
Arsenic ₀ ^{MS}	8							mg/kg	1	A-T-024a
Cadmium ₀ ^{MS}	0.7							mg/kg	0.5	A-T-024a
Copper ₀ ^{MS}	36							mg/kg	1	A-T-024a
Chromium ₀ ^{MS}	29							mg/kg	1	A-T-024a
Lead ₀ ^{MS}	69							mg/kg	1	A-T-024a
Mercury ₀	0.29							mg/kg	0.17	A-T-024a
Nickel ₀ ^{MS}	15							mg/kg	1	A-T-024a
Selenium ₀ ^{MS}	<1							mg/kg	1	A-T-024a
Zinc ₀ ^{MS}	96							mg/kg	5	A-T-024a

Envirolab Job Number: 23/09477

Client Project Name: MSSR

Client Project Ref: Not specified

Lab Sample ID	23/09477/2							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	25-Sep-23									
Sample Type	SOIL - ES									
Sample Matrix Code	5A									
PAH-16MS										
Acenaphthene _A ^{MS}	0.10							mg/kg	0.01	A-T-015a
Acenaphthylene _A ^{MS}	0.03							mg/kg	0.01	A-T-015a
Anthracene _A ^{MS}	0.19							mg/kg	0.02	A-T-015a
Benzo(a)anthracene _A ^{MS}	0.94							mg/kg	0.04	A-T-015a
Benzo(a)pyrene _A ^{MS}	1.04							mg/kg	0.04	A-T-015a
Benzo(b)fluoranthene _A ^{MS}	1.37							mg/kg	0.05	A-T-015a
Benzo(ghi)perylene _A ^{MS}	0.54							mg/kg	0.05	A-T-015a
Benzo(k)fluoranthene _A ^{MS}	0.46							mg/kg	0.07	A-T-015a
Chrysene _A ^{MS}	1.03							mg/kg	0.06	A-T-015a
Dibenzo(ah)anthracene _A	0.12							mg/kg	0.04	A-T-015a
Fluoranthene _A ^{MS}	1.61							mg/kg	0.08	A-T-015a
Fluorene _A ^{MS}	0.07							mg/kg	0.01	A-T-015a
Indeno(123-cd)pyrene _A ^{MS}	0.64							mg/kg	0.03	A-T-015a
Naphthalene _A ^{MS}	0.06							mg/kg	0.03	A-T-015a
Phenanthrene _A ^{MS}	0.77							mg/kg	0.03	A-T-015a
Pyrene _A ^{MS}	1.56							mg/kg	0.07	A-T-015a
Total PAH-16MS _A	10.5							mg/kg	0.01	A-T-015a

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 within the same delivery, will be disposed of **six weeks** after the 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 our scope of accreditation.

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

A deviating sample 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.

Key

Superscript "S"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.

Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require 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: Marchington Stone Ltd, 105 Buxton Road, High Lane, Stockport SK6 8DX

Project No: 23/09477

Project: MSSR

Date Received: 25/09/2023 (am)

Clients Project No:

Cool Box Temperatures (°C): 14.7

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	23/09477/1	23/09477/2	23/09477/3	23/09477/4
Client Sample No				
Client Sample ID/Depth	6F2	Screened Soil	Subsoil	As Dug Topsoil
Date Sampled	25/09/23	25/09/23	25/09/23	25/09/23
A-T-007s			05/10/2023	
A-T-019s		05/10/2023	05/10/2023	05/10/2023
A-T-024s		05/10/2023	05/10/2023	05/10/2023
A-T-026s	05/10/2023	05/10/2023	05/10/2023	05/10/2023
A-T-028s	06/10/2023			
A-T-031s	04/10/2023	04/10/2023	05/10/2023	05/10/2023
A-T-044	06/10/2023	06/10/2023	06/10/2023	06/10/2023
A-T-045	27/09/2023			

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



BEK Geo-Environmental Consulting

No.2 Landwick Court, Metcalf Drive, Altham Business Park,
Lancashire BB5 5TU

mbuckley@bekenviro.co.uk

bekenviro.co.uk

01254 377622

ANNEX B

Chemical Test Results

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/01047
Issue Number: 1

Date: 15 February, 2024

Client: BEK Enviro Ltd
2 Landwick Court
Metcalf Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: Mick Buckley/James Mashiter
Project Name: Oldham Road, Newton Heath
Project Ref: Not specified
Order No: 8077-23007-MLM
Date Samples Received: 01/02/24
Date Instructions Received: 02/02/24
Date Analysis Completed: 15/02/24

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 24/01047

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6		Units	Limit of Detection	Method ref
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12				
Client Sample ID										
Depth to Top										
Depth To Bottom										
Date Sampled	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4A	4A	4A	4A	4A	4A				
% Stones >10mm _A	15.6	9.6	13.0	6.0	21.2	3.3		% w/w	0.1	A-T-044
pH _D ^{M#}	6.77	6.73	6.53	6.52	6.39	6.54		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	<200	<200	<200	<200	<200	<200		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#}	0.7	0.6	0.7	3.0	0.6	0.8		% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	11	11	11	10	9	11		mg/kg	1	A-T-024s
Chromium _D ^{M#}	24	24	23	24	20	23		mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead _D ^{M#}	9	11	10	9	9	11		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#}	20	21	20	20	18	20		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	45	48	45	59	42	49		mg/kg	5	A-T-024s

Envirolab Job Number: 24/01047

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6		Units	Limit of Detection	Method ref
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12				
Client Sample ID										
Depth to Top										
Depth To Bottom										
Date Sampled	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4A	4A	4A	4A	4A	4A				
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-	-	-				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: 24/01047

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6		Units	Limit of Detection	Method ref
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12				
Client Sample ID										
Depth to Top										
Depth To Bottom										
Date Sampled	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4A	4A	4A	4A	4A	4A				
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		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	<0.04		mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		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	<0.06		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<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	<0.08		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	<0.03		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#}	<0.03	<0.03	<0.03	<0.03	<0.03	0.04		mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		mg/kg	0.07	A-T-019s
Total PAH-16MS _A	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08		mg/kg	0.01	A-T-019s

Envirolab Job Number: 24/01047

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6		Units	Limit of Detection	Method ref
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12				
Client Sample ID										
Depth to Top										
Depth To Bottom										
Date Sampled	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24	01-Feb-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4A	4A	4A	4A	4A	4A				
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	2	1	2	2	2	2		mg/kg	1	A-T-055s
Total Aliphatics _A	2	1	2	2	2	2		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	<1	<1	<1	<1		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	2	1	2	2	2	2		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<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 within the same delivery, will be disposed of **four weeks** after the 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 our scope of accreditation.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 A deviating sample 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.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
 Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.
 Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: BEK Enviro Ltd, 2 Landwick Court, Metcalfe Drive, Altham Business Park,
Altham, Lancashire , BB5 5GY

Project: Oldham Road, Newton Heath

Clients Project No:

Project No: 24/01047

Date Received: 02/02/2024 (am)

Cool Box Temperatures (°C): 8.2

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.

Envirolab Analysis Dates

Lab Sample ID	24/01047/1	24/01047/2	24/01047/3	24/01047/4	24/01047/5	24/01047/6
Client Sample No	SS7	SS8	SS9	SS10	SS11	SS12
Client Sample ID/Depth						
Date Sampled	01/02/24	01/02/24	01/02/24	01/02/24	01/02/24	01/02/24
A-T-019s	08/02/2024	08/02/2024	08/02/2024	08/02/2024	08/02/2024	08/02/2024
A-T-022s	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024
A-T-024s	12/02/2024	12/02/2024	12/02/2024	15/02/2024	12/02/2024	12/02/2024
A-T-026s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-027s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-028s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-031s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-032s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-040s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-042sTCN	08/02/2024	08/02/2024	08/02/2024	08/02/2024	08/02/2024	08/02/2024
A-T-044	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-045	07/02/2024	07/02/2024	07/02/2024	07/02/2024	07/02/2024	07/02/2024
A-T-050s	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024	12/02/2024
A-T-055s	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024
Calc-As Recd	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024	09/02/2024

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

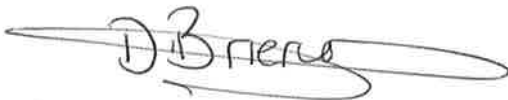
Envirolab Job Number: 24/00651
Issue Number: 1

Date: 01 February, 2024

Client: BEK Enviro Ltd
2 Landwick Court
Metcalf Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: Mick Buckley/James Mashiter
Project Name: Oldham Road, Newton Heath
Project Ref: Not specified
Order No: 8060-23007-MLM
Date Samples Received: 24/01/24
Date Instructions Received: 24/01/24
Date Analysis Completed: 01/02/24

Approved by:



Danielle Brierley
Client Services Supervisor

Envirolab Job Number: 24/00651

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12				
Depth to Top										
Depth To Bottom										
Date Sampled	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6A	6E	6AE	6	6	6				
% Stones >10mm _A	<0.1	<0.1	5.4	<0.1	<0.1	<0.1		% w/w	0.1	A-T-044
pH _D ^{M#}	7.07	6.86	7.22	7.45	7.02	6.77		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	0.08	0.06	<0.01	<0.01		g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	230	220	450	400	210	220		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#}	3.2	2.8	3.8	2.8	2.9	3.0		% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	4	4	4	4	4	4		mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	25	26	24	23	22	28		mg/kg	1	A-T-024s
Chromium _D ^{M#}	17	18	16	16	15	17		mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead _D ^{M#}	56	57	47	48	49	56		mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	0.35	0.22	<0.17	0.33		mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	13	14	12	15	12	13		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	41	42	47	45	36	41		mg/kg	5	A-T-024s

Envirolab Job Number: 24/00651

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12				
Depth to Top										
Depth To Bottom										
Date Sampled	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6A	6E	6AE	6	6	6				
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-	-	-				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: 24/00651

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12				
Depth to Top										
Depth To Bottom										
Date Sampled	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6A	6E	6AE	6	6	6				
PAH-16MS										
Acenaphthene _A ^{M#}	0.05	0.01	0.03	0.15	0.02	0.04		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#}	0.07	<0.02	0.08	0.35	0.04	0.05		mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.27	0.07	0.35	0.96	0.19	0.27		mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.28	0.08	0.45	0.90	0.19	0.29		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.27	0.08	0.46	0.91	0.18	0.30		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.15	<0.05	0.26	0.50	0.12	0.18		mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.11	<0.07	0.18	0.37	<0.07	0.12		mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.33	0.09	0.41	1.10	0.24	0.36		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<0.04	<0.04	0.04	0.09	<0.04	<0.04		mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.46	0.13	0.63	1.78	0.32	0.44		mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	0.02	<0.01	0.02	0.14	0.01	0.02		mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.15	<0.03	0.30	0.53	0.11	0.18		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#}	0.35	0.09	0.25	1.31	0.19	0.26		mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.45	0.14	0.59	1.55	0.32	0.47		mg/kg	0.07	A-T-019s
Total PAH-16MS _A	2.96	0.69	4.05	10.6	1.93	2.98		mg/kg	0.01	A-T-019s

Envirolab Job Number: 24/00651

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12				
Depth to Top										
Depth To Bottom										
Date Sampled	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24	22-Jan-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6A	6E	6AE	6	6	6				
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	2	2	25	15	4	5		mg/kg	1	A-T-055s
Total Aliphatics _A	2	2	26	15	4	5		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<2	<2	<2	<2	<2	<2		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	4	1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	1	2	45	6	2	4		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	6	7	91	26	9	11		mg/kg	1	A-T-055s
Total Aromatics _A	7	9	141	33	12	14		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	9	12	167	48	15	19		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<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 within the same delivery, will be disposed of **four weeks** after the 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 our scope of accreditation.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 A deviating sample 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.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
 Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.
 Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: BEK Enviro Ltd, 2 Landwick Court, Metcalfe Drive, Altham Business Park,
Altham, Lancashire , BB5 5GY

Project: Oldham Road, Newton Heath

Clients Project No:

Project No: 24/00651

Date Received: 24/01/2024 (am)

Cool Box Temperatures (°C): 10.3

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.

Envirolab Analysis Dates

Lab Sample ID	24/00651/1	24/00651/2	24/00651/3	24/00651/4	24/00651/5	24/00651/6
Client Sample No						
Client Sample ID/Depth	VS-TS-7	VS-TS-8	VS-TS-9	VS-TS-10	VS-TS-11	VS-TS-12
Date Sampled	22/01/24	22/01/24	22/01/24	22/01/24	22/01/24	22/01/24
A-T-019s	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024
A-T-022s	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024
A-T-024s	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-026s	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-027s	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-028s	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-031s	01/02/2024	01/02/2024	01/02/2024	01/02/2024	01/02/2024	01/02/2024
A-T-032s	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-040s	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-042sTCN	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024
A-T-044	26/01/2024	26/01/2024	26/01/2024	26/01/2024	26/01/2024	26/01/2024
A-T-045	25/01/2024	25/01/2024	25/01/2024	25/01/2024	25/01/2024	25/01/2024
A-T-050s	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-055s	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
Calc-As Recd	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024

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



BEK Geo-Environmental Consulting

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ANNEX C

Photographs



GEO-ENVIRONMENTAL CONSULTING

BEK Geo-Environmental Consulting

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Photograph 1: Validation of Garden Capping



Photograph 2: Validation of Garden Capping

Our Ref: BEK/23007/240130/CG/30

30th January 2024

FAO Oliver Lord **The Casey Group** Rydings Road Rochdale
OL12 9PS

Dear Oliver,

Garden Capping Validation Letter for Residential Development at Oldham Road, Newton Heath - PLOT 30

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

The approved remediation works are detailed in the BEK Remediation Method Statement, Report Ref: BEK-23007-1, dated February 2023.

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

‘All garden/landscaping areas or capped with clean, inert sub/topsoil suitable for use. It is considered that a minimum of 600 mm cover thickness within rear gardens and 450 mm cover thickness within front gardens and landscaped areas. The capping soils should be underlain by a 100 mm granular nodig layer or a geotextile marker membrane to prevent mixing.’

Following a review of the information it was determined that a capping system comprising both of topsoil and subsoil to a minimum 600 mm thick with a high visibility geotextile at the base could be utilised within private gardens at the site.

Remediation activities have been supervised by both BEK and CG. BEK has confirmed that the soils are suitable for use (prior to placement) and carried out checks to confirm that the correct capping thickness and geotextile membrane have been achieved. BEK has relied on CG and their appointed contractors to cap the gardens with the validated capping soils.

Topsoil and subsoil used within the gardens comprises of imported soils by CG as a product from Marchington Stone Limited. Source test data has been made available to BEK confirms that the Marchington soils are suitable for use in a residential garden. A copy of the source test data is provided within Annex A.

To ensure suitability (and to comply with testing frequency requirements), BEK inspected the Marchingtons soils placed in each of the plots and recovered representative samples for chemical testing. The topsoil is described as ‘dark brown silty sand with occasional fine to coarse angular to

**BEK Geo-Environmental Consulting**

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GEO-ENVIRONMENTAL CONSULTING

rounded gravel' and the subsoil described as 'brown sandy slightly silty clay with frequent fine to coarse gravels' and are visually suitable for use. BEK has recovered a number of samples from the placed soils and copies of the chemical test results for the most recent samples tested (VS-TS-A to VS-TS-F and SS1 to SS6) are presented in Annex B.

Additional samples will be recovered progressively as the remediation works continue. Regular liaison with site managers will be maintained to ensure sample frequencies are maintained progressively throughout the works. Final volumes will be provided for imported topsoil at the end of the project.

In addition to confirming suitability of the soils used in the garden capping system at the site, BEK also confirms that that capping thickness is a minimum of 600 mm thick. CG confirm that a geotextile membrane has been placed at the base of the capping layer. Spot checks carried out by BEK on selected plots prove the presence of the geotextile membrane. Photographs showing capping thickness are provided within Annex C.

Based on the information provided by CG and the validation works carried out by BEK, we can confirm that the remediation works required for Plot 30 at the residential development at Oldham Road Newton Heath has been completed in accordance with the approved methodology. This Certificate should be read in conjunction with the final Validation Report that will be prepared on completion of all remediation works at the site.

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



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ANNEX A

Source Test Data

Jeff Dean Barcal
Marchington Stone Ltd
105 Buxton Road
High Lane
Stockport
Cheshire
SK6 8DX

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e:

Analytical Report Number : 22-86313

Project / Site name:	MSSHQ	Samples received on:	26/09/2022
Your job number:	SUB SOIL	Samples instructed on/ Analysis started on:	26/09/2022
Your order number:	MSSHQ 23 9 22	Analysis completed by:	10/10/2022
Report Issue Number:	1	Report issued on:	10/10/2022
Samples Analysed:	1 soil sample		

Signed:


Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-86313
Project / Site name: MSSHQ
Your Order No: MSSHQ 23 9 22

Lab Sample Number					2437376
Sample Reference					MSSHQ SUB SOIL
Sample Number					None Supplied
Depth (m)					None Supplied
Date Sampled					23/09/2022
Time Taken					0935
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	
Moisture Content	%	0.01	NONE	7.7	
Total mass of sample received	kg	0.001	NONE	1.8	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	LFT

General Inorganics

Organic Matter (automated)	%	0.1	MCERTS	0.4
----------------------------	---	-----	--------	-----

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
-----------------------------	-------	-----	--------	--------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	3.5
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (III)	mg/kg	1	NONE	17
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	7.9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	46

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0

Analytical Report Number: 22-86313

Project / Site name: MSSHQ

Your Order No: MSSHQ 23 9 22

Lab Sample Number	2437376			
Sample Reference	MSSHQ SUB SOIL			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	23/09/2022			
Time Taken	0935			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 _{HS,1D,AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 _{EH,CU,1D,AL}	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH,CU,1D,AL}	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC35 - EC40 _{EH,CU,1D,AL}	mg/kg	10	NONE	< 10
TPH-CWG - Aliphatic (EC5 - EC35) _{EH,CU+HS,1D,AL}	mg/kg	10	MCERTS	< 10

TPH-CWG - Aromatic >EC5 - EC7 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 _{HS,1D,AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 _{EH,CU,1D,AR}	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 _{EH,CU,1D,AR}	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC35 - EC40 _{EH,CU,1D,AR}	mg/kg	10	NONE	< 10
TPH-CWG - Aromatic (EC5 - EC35) _{EH,CU+HS,1D,AR}	mg/kg	10	MCERTS	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2437376	ISSHQ SUB SOIL	None Supplied	None Supplied	Brown clay and loam with gravel.

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector

Analytical Report Number : 22-86313

Project / Site name: MSSHQ

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
GC	Gas Chromatography				
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))				
CU	Clean-up - e.g. by Florisil®, silica gel				
1D	GC - Single coil/column gas chromatography				
2D	GC-GC - Double coil/column gas chromatography				
Total	Aliphatics & Aromatics				
AL	Aliphatics				
AR	Aromatics				
#1	EH_2D_Total but with humics mathematically subtracted				
#2	EH_2D_Total but with fatty acids mathematically subtracted				
-	Operator - understore to separate acronyms (exception for +)				
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total				

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 23/09477/2

Amendments: Request for split report

Envirolab Job Number: 23/09477
Issue Number: 2-S2
Date: 09 October, 2023

Client: Marchington Stone Ltd
105 Buxton Road
High Lane
Stockport
SK6 8DX

Project Manager:
Project Name: MSSR
Project Ref: Not specified
Order No: KL2509
Date Samples Received: 25/09/23
Date Instructions Received: 25/09/23
Date Analysis Completed: 06/10/23

Approved by:

A handwritten signature in black ink, appearing to read "Gemma Berrisford".

Gemma Berrisford
Deputy Client Services Supervisor

Envirolab Job Number: 23/09477/2

Client Project Name: MSSR

Client Project Ref: Not specified

Lab Sample ID	23/09477/2									
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	25-Sep-23									
Sample Type	SOIL - ES									
Sample Matrix Code	5A									
								Units	Limit of Detection	Method ref
% Stones >10mm _A	6.8							% w/w	0.1	A-T-044
pH ₀ ^{MS}	8.5							pH	0.01	A-T-031a
Sulphate (water sol 2:1) ₀ ^{MS}	0.24							g/l	0.01	A-T-026a
Arsenic ₀ ^{MS}	8							mg/kg	1	A-T-024a
Cadmium ₀ ^{MS}	0.7							mg/kg	0.5	A-T-024a
Copper ₀ ^{MS}	36							mg/kg	1	A-T-024a
Chromium ₀ ^{MS}	29							mg/kg	1	A-T-024a
Lead ₀ ^{MS}	69							mg/kg	1	A-T-024a
Mercury ₀	0.29							mg/kg	0.17	A-T-024a
Nickel ₀ ^{MS}	15							mg/kg	1	A-T-024a
Selenium ₀ ^{MS}	<1							mg/kg	1	A-T-024a
Zinc ₀ ^{MS}	96							mg/kg	5	A-T-024a

Envirolab Job Number: 23/09477

Client Project Name: MSSR

Client Project Ref: Not specified

Lab Sample ID	23/09477/2							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	25-Sep-23									
Sample Type	SOIL - ES									
Sample Matrix Code	5A									
PAH-16MS										
Acenaphthene _A ^{MS}	0.10							mg/kg	0.01	A-T-015a
Acenaphthylene _A ^{MS}	0.03							mg/kg	0.01	A-T-015a
Anthracene _A ^{MS}	0.19							mg/kg	0.02	A-T-015a
Benzo(a)anthracene _A ^{MS}	0.94							mg/kg	0.04	A-T-015a
Benzo(a)pyrene _A ^{MS}	1.04							mg/kg	0.04	A-T-015a
Benzo(b)fluoranthene _A ^{MS}	1.37							mg/kg	0.05	A-T-015a
Benzo(ghi)perylene _A ^{MS}	0.54							mg/kg	0.05	A-T-015a
Benzo(k)fluoranthene _A ^{MS}	0.46							mg/kg	0.07	A-T-015a
Chrysene _A ^{MS}	1.03							mg/kg	0.06	A-T-015a
Dibenzo(ah)anthracene _A	0.12							mg/kg	0.04	A-T-015a
Fluoranthene _A ^{MS}	1.61							mg/kg	0.08	A-T-015a
Fluorene _A ^{MS}	0.07							mg/kg	0.01	A-T-015a
Indeno(123-cd)pyrene _A ^{MS}	0.64							mg/kg	0.03	A-T-015a
Naphthalene _A ^{MS}	0.06							mg/kg	0.03	A-T-015a
Phenanthrene _A ^{MS}	0.77							mg/kg	0.03	A-T-015a
Pyrene _A ^{MS}	1.56							mg/kg	0.07	A-T-015a
Total PAH-16MS _A	10.5							mg/kg	0.01	A-T-015a

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 within the same delivery, will be disposed of **six weeks** after the 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 our scope of accreditation.

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

A deviating sample 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.

Key

Superscript "S"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.

Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require 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: Marchington Stone Ltd, 105 Buxton Road, High Lane, Stockport SK6 8DX

Project No: 23/09477

Project: MSSR

Date Received: 25/09/2023 (am)

Clients Project No:

Cool Box Temperatures (°C): 14.7

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	23/09477/1	23/09477/2	23/09477/3	23/09477/4
Client Sample No				
Client Sample ID/Depth	6F2	Screened Soil	Subsoil	As Dug Topsoil
Date Sampled	25/09/23	25/09/23	25/09/23	25/09/23
A-T-007s			05/10/2023	
A-T-019s		05/10/2023	05/10/2023	05/10/2023
A-T-024s		05/10/2023	05/10/2023	05/10/2023
A-T-026s	05/10/2023	05/10/2023	05/10/2023	05/10/2023
A-T-028s	06/10/2023			
A-T-031s	04/10/2023	04/10/2023	05/10/2023	05/10/2023
A-T-044	06/10/2023	06/10/2023	06/10/2023	06/10/2023
A-T-045	27/09/2023			

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



BEK Geo-Environmental Consulting

No.2 Landwick Court, Metcalf Drive, Altham Business Park,
Lancashire BB5 5TU

mbuckley@bekenviro.co.uk

bekenviro.co.uk

01254 377622

ANNEX B

Chemical Test Results

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 23/10521/1

Amendments: Request for split report

Envirolab Job Number: 23/10521
Issue Number: 2-S2

Date: 09 November, 2023

Client: BEK Enviro Ltd
2 Landwick Court
Metcalf Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: James Mashiter/Mick Buckley
Project Name: Oldham Road, Newton Heath
Project Ref: Not specified
Order No: 7972-23007-MLM
Date Samples Received: 24/10/23
Date Instructions Received: 25/10/23
Date Analysis Completed: 07/11/23

Approved by:

A handwritten signature in black ink, appearing to read "Gemma Berrisford".

Gemma Berrisford
Deputy Client Services Supervisor

Envirolab Job Number: 23/10521

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	23/10521/7	23/10521/8	23/10521/9	23/10521/10	23/10521/11	23/10521/12		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SS1	SS2	SS3	SS4	SS5	SS6				
Depth to Top										
Depth To Bottom										
Date Sampled	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	5A	5A	5A	5A	5AE	5A				
% Stones >10mm _A	11.2	8.2	13.7	10.4	17.3	13.5		% w/w	0.1	A-T-044
Asbestos in soil _D ^{MF}	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-	-	-				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
pH _D ^{MF}	6.34	6.44	5.84	6.79	6.59	6.52		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{MF}	0.02	<0.01	<0.01	<0.01	<0.01	<0.01		g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{MF}	<200	<200	<200	<200	<200	<200		mg/kg	200	A-T-028s
Cyanide (total) _A ^{MF}	<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 ^{MF}	0.7	0.6	0.9	0.8	0.6	0.6		% w/w	0.1	A-T-032s
Arsenic _D ^{MF}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Boron (water soluble) _D ^{MF}	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium _D ^{MF}	<0.5	0.6	<0.5	<0.5	<0.5	<0.5		mg/kg	0.5	A-T-024s
Copper _D ^{MF}	14	13	9	11	10	10		mg/kg	1	A-T-024s
Chromium _D ^{MF}	28	30	19	22	21	22		mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead _D ^{MF}	15	13	9	12	9	10		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 ^{MF}	25	26	19	22	22	20		mg/kg	1	A-T-024s
Selenium _D ^{MF}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{MF}	63	66	48	63	53	48		mg/kg	5	A-T-024s

Envirolab Job Number: 23/10521

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	23/10521/7	23/10521/8	23/10521/9	23/10521/10	23/10521/11	23/10521/12		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SS1	SS2	SS3	SS4	SS5	SS6				
Depth to Top										
Depth To Bottom										
Date Sampled	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	5A	5A	5A	5A	5AE	5A				
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		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	<0.04		mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		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	<0.06		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<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	<0.08		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	<0.03		mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03 ^U	<0.03 ^U	<0.03 ^U	<0.03 ^U	<0.03 ^U	<0.03 ^U		mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		mg/kg	0.07	A-T-019s
Total PAH-16MS _A	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08		mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/10521

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	23/10521/7	23/10521/8	23/10521/9	23/10521/10	23/10521/11	23/10521/12		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SS1	SS2	SS3	SS4	SS5	SS6				
Depth to Top										
Depth To Bottom										
Date Sampled	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23	23-Oct-23				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	5A	5A	5A	5A	5AE	5A				
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1	<1	<1	<1	<1		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Total Aromatics _A	1	<1	<1	<1	<1	<1		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	1	<1	<1	<1	<1	<1		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<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 within the same delivery, will be disposed of **six weeks** after the 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 our scope of accreditation.

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

A deviating sample 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.

Key

Superscript “#”	Accredited to ISO 17025
Superscript “M”	Accredited to MCertS
Superscript “U”	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript “A”	Analysis performed on as-received Sample
Subscript “D”	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript “^”	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.

Results “with Clean up” indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from “TPH CWG with clean up” please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require 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, 2 Landwick Court, Metcalfe Drive, Altham Business Park,
Altham, Lancashire , BB5 5GY

Project: Oldham Road, Newton Heath

Clients Project No:

Project No: 23/10521

Date Received: 25/10/2023 (am)

Cool Box Temperatures (°C): 7.6

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	23/10521/1	23/10521/2	23/10521/3	23/10521/4	23/10521/5	23/10521/6	23/10521/7	23/10521/8	23/10521/9	23/10521/10	23/10521/11	23/10521/12
Client Sample No												
Client Sample ID/Depth	TS1	TS2	TS3	TP4	TP5	TS6	SS1	SS2	SS3	SS4	SS5	SS6
Date Sampled	23/10/23	23/10/23	23/10/23	23/10/23	23/10/23	23/10/23	23/10/23	23/10/23	23/10/23	23/10/23	23/10/23	23/10/23
A-T-019s	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023
A-T-022s	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023
A-T-024s	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023
A-T-026s	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023
A-T-027s	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023
A-T-028s	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023
A-T-031s	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023
A-T-032s	06/11/2023	07/11/2023	07/11/2023	07/11/2023	07/11/2023	06/11/2023	07/11/2023	07/11/2023	07/11/2023	07/11/2023	07/11/2023	07/11/2023
A-T-040s	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023
A-T-042sTCN	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023	02/11/2023
A-T-044	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023
A-T-045	27/10/2023	27/10/2023	27/10/2023	27/10/2023	27/10/2023	27/10/2023	27/10/2023	27/10/2023	27/10/2023	27/10/2023	27/10/2023	27/10/2023
A-T-050s	03/11/2023	03/11/2023	03/11/2023	03/11/2023	03/11/2023	03/11/2023	03/11/2023	03/11/2023	03/11/2023	03/11/2023	03/11/2023	03/11/2023
A-T-054	30/10/2023					30/10/2023						
A-T-055s	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023	31/10/2023
Calc-As Recd	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023	01/11/2023

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: 23/10963
Issue Number: 1

Date: 14 November, 2023

Client: BEK Enviro Ltd
2 Landwick Court
Metcalf Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: Mick Buckley/James Mashiter
Project Name: Oldham Road, Newton Heath
Project Ref: Not specified
Order No: 7980-23007-DE
Date Samples Received: 07/11/23
Date Instructions Received: 07/11/23
Date Analysis Completed: 14/11/23

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 23/10963

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	23/10963/1	23/10963/2	23/10963/3	23/10963/4	23/10963/5	23/10963/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-A	VS-TS-B	VS-TS-C	VS-TS-D	VS-TS-E	VS-TS-F				
Depth to Top										
Depth To Bottom										
Date Sampled	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6AE	6AE	3	6AE	6AE	3				
% Stones >10mm _A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		% w/w	0.1	A-T-044
Asbestos in soil _D ^{M#}	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-	-	-				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
pH _D ^{M#}	7.89	7.64	7.68	7.98	7.89	7.71		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.02	0.02	0.03	0.05	0.03	0.02		g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	300	330	310	380	340	320		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#}	3.4	3.2	5.3	3.2	3.0	3.8		% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	9	9	8	9	8	9		mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium _D ^{M#}	0.6	0.6	0.6	0.6	0.6	0.7		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	49	49	47	47	46	52		mg/kg	1	A-T-024s
Chromium _D ^{M#}	24	27	24	26	24	25		mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead _D ^{M#}	52	51	49	52	49	60		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#}	20	21	20	20	18	23		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	70	71	68	70	63	76		mg/kg	5	A-T-024s

Envirolab Job Number: 23/10963

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	23/10963/1	23/10963/2	23/10963/3	23/10963/4	23/10963/5	23/10963/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-A	VS-TS-B	VS-TS-C	VS-TS-D	VS-TS-E	VS-TS-F				
Depth to Top										
Depth To Bottom										
Date Sampled	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6AE	6AE	3	6AE	6AE	3				
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	0.01	<0.01	<0.01	0.01		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	0.05	<0.04	<0.04	0.07		mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	0.05	<0.04	<0.04	0.07		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.06	<0.05	0.07	<0.05	<0.05	0.09		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		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	0.08	<0.06	<0.06	0.11		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<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	0.14	<0.08	<0.08	0.18		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	0.04	<0.03	<0.03	0.05		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#}	0.06	0.05	0.11	0.07	0.06	0.15		mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.08	<0.07	0.13	0.08	<0.07	0.17		mg/kg	0.07	A-T-019s
Total PAH-16MS _A	0.20	<0.08	0.68	0.15	<0.08	0.93		mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/10963

Client Project Name: Oldham Road, Newton Heath

Client Project Ref: Not specified

Lab Sample ID	23/10963/1	23/10963/2	23/10963/3	23/10963/4	23/10963/5	23/10963/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-A	VS-TS-B	VS-TS-C	VS-TS-D	VS-TS-E	VS-TS-F				
Depth to Top										
Depth To Bottom										
Date Sampled	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	6AE	6AE	3	6AE	6AE	3				
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	4	4	4	2	2	6		mg/kg	1	A-T-055s
Total Aliphatics _A	4	4	4	2	2	6		mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<2	<2	<2	<2	<2	<2		mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	1	1	2	1	<1	2		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	1	2	2	1	<1	4		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	2	2	4	2	2	5		mg/kg	1	A-T-055s
Total Aromatics _A	5	6	8	5	2	11		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	8	10	12	7	5	17		mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<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 within the same delivery, will be disposed of **six weeks** after the 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 our scope of accreditation.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 A deviating sample 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.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

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.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

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 by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
 Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.
 Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

Please contact your client manager if you require 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, 2 Landwick Court, Metcalfe Drive, Altham Business Park,
Altham, Lancashire , BB5 5GY

Project: Oldham Road, Newton Heath

Clients Project No:

Project No: 23/10963

Date Received: 07/11/2023 (am)

Cool Box Temperatures (°C): 10.1

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.

Envirolab Analysis Dates

Lab Sample ID	23/10963/1	23/10963/2	23/10963/3	23/10963/4	23/10963/5	23/10963/6
Client Sample No						
Client Sample ID/Depth	VS-TS-A	VS-TS-B	VS-TS-C	VS-TS-D	VS-TS-E	VS-TS-F
Date Sampled	03/11/23	03/11/23	03/11/23	03/11/23	03/11/23	03/11/23
A-T-019s	14/11/2023	14/11/2023	14/11/2023	14/11/2023	14/11/2023	14/11/2023
A-T-022s	14/11/2023	14/11/2023	14/11/2023	14/11/2023	14/11/2023	14/11/2023
A-T-024s	10/11/2023	10/11/2023	10/11/2023	10/11/2023	13/11/2023	13/11/2023
A-T-026s	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023
A-T-027s	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023
A-T-028s	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023
A-T-031s	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023
A-T-032s	13/11/2023	13/11/2023	13/11/2023	13/11/2023	13/11/2023	13/11/2023
A-T-040s	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023
A-T-042sTCN	13/11/2023	13/11/2023	13/11/2023	13/11/2023	13/11/2023	13/11/2023
A-T-044	13/11/2023	13/11/2023	13/11/2023	13/11/2023	13/11/2023	13/11/2023
A-T-045	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
A-T-050s	13/11/2023	13/11/2023	13/11/2023	13/11/2023	13/11/2023	13/11/2023
A-T-055s	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023	10/11/2023
Calc-As Recd	14/11/2023	14/11/2023	14/11/2023	14/11/2023	14/11/2023	14/11/2023

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



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ANNEX C

Photographs