

VALIDATION REPORT - REMEDIATION STRATEGY
CITY LABS 4.0
MANCHESTER
GMI CONSTRUCTION GROUP
VR-22579B-24-357
MARCH 2025

IDOM



VALIDATION REPORT - REMEDIATION STRATEGY
CITY LABS 4.0
MANCHESTER
GMI CONSTRUCTION GROUP
VR-22579B-24-357
MARCH 2025

Document Issue Record

Status	Final	Date of Issue	10/02/2025
Prepared by		Approved by	
Lucy Hayes	BSc, MSc	Lisa Horsley	

Rev	Prepared	Approved	Date of Issue	Reason(s) for Revision
0	Oct 24	LH	11/10/2024	-
A	Feb 25	LH	10/02/2025	Addition of soft landscaping validation
B	Mar 25	AFJ	20/03/25	Amendments following council review

TABLE OF CONTENTS

SECTION 1 INTRODUCTION1

SECTION 2 REVIEW OF INFORMATION2

2.1 WASTE TRANSFER NOTES2

2.2 PHOTOGRAPHS2

2.3 IMPORTED MATERIALS.....2

SECTION 3 CONCLUSIONS.....5

APPENDIX 1

- Waste Transfer Notes

APPENDIX 2

- Construction Photographs

APPENDIX 3

- Imported Topsoil Specification

APPENDIX 4

- Soft Landscape Validation Location Plan
- Soft Landscape Validation Depth Check Photographs

APPENDIX 5

- Laboratory Certificates
- Soil Screening Summary

SECTION 1 INTRODUCTION

1.1 IDOM Merebrook (IDOM) have been instructed by GMI Construction Group (GMI) to produce a validation report to allow planning conditions 16c and d of consent reference 125592/FO/2019 to be discharged for the site known as "City Labs 4.0" located at Citylabs Campus, 0 Hathersage Rd, Manchester M13 9NQ.

1.2 The following reports have been made available to IDOM for the development:

- i. ARUP, Geotechnical and Geoenvironmental Desk Study Report, Reference: GEO-REP-001, Dated May 2019.
- ii. ARUP, Ground Investigation Report, Reference: GEO-REP-002, Dated April 2022, Issue 2.

1.3 The proposed development is described as follows:

The proposed works comprise the demolition of the existing buildings and structures and the erection of a 10-storey plus basement office building (Use Class E(g)), with flexible ground floor and basement uses (Use Class E) and a rooftop garden, works to facilitate the pedestrianisation of the southern part of Ridgefield and other associated works.

1.4 The Planning Application Reference for the site is 125592/FO/2019 and correspondence received from Manchester City Council and the Environment Health Officer requiring further details are below:

Condition 16c – "When the development commences, the development shall be carried out in accordance with the previously agreed Remediation Strategy and a Completion/Verification Report shall be submitted to and approved in writing by the City Council as local planning authority prior to the first occupation of the development."

Condition 16d – "In the event that ground contamination, groundwater contamination and/or ground gas, not previously identified, are found to be present on the site at any time before the development is occupied, then development shall cease and/or the development shall not be occupied until, a report outlining what measures, if any, are required to remediate the land (the Revised Remediation Strategy) is submitted to and approved in writing by the City Council as local planning authority and the development shall be carried out in accordance with the Revised Remediation Strategy, which shall take precedence over any Remediation Strategy or earlier Revised Remediation Strategy."

1.5 The 2022 Arup Ground Investigation Report report included a Remediation Strategy in Section 8 which sets out the following actions:

- i. Management of excavated materials;
- ii. Validation of imported topsoil;

- iii.* Assessment of environmental risks associated with piling;
 - iv.* Implementation of a contamination discovery strategy;
 - v.* Use of the appropriate class of concrete.
- 1.6 GMI have informed IDOM that no contamination was encountered at the site and therefore no detailed remediation strategy was produced for the site other than the brief strategy presented in the 2022 Arup report. This validation report will discuss the evidence provided to IDOM by GMI in relation to Condition 16 to determine whether the condition can be discharged.
- 1.7 The following information has been provided:
 - i.* Photographs taken throughout the project showing the ground conditions; and
 - ii.* Waste Transfer Notes for the material which was removed offsite.
- 1.8 IDOM were not required for attendance on site, as a watching brief was carried out by the Site Supervisor throughout the works, during which no contamination was identified by the Site Supervisor.
- 1.9 All the information has been provided by GMI therefore IDOM does not accept liability for the accuracy of the information.

SECTION 2 REVIEW OF INFORMATION

2.1 WASTE TRANSFER NOTES

- 2.2 The Waste Transfer Notes provided by GMI show that approximately 260 m³ of material was removed from site by Maher Ltd.
- 2.3 As all the material was removed offsite as inert or non-hazardous waste it is assumed that there was no contamination found during the works.
- 2.4 Example Waste Transfer Notes are provided in Appendix 1.

2.2 PHOTOGRAPHS

- 2.2.1 The photographs provided by GMI which were taken during the groundworks are provided in Appendix 2.
- 2.2.2 IDOM have reviewed the photographs and there is no evidence of visual contamination during the works. This is based solely on the photographs provided as the watching brief was carried out by the Site Supervisor.

2.3 IMPORTED MATERIALS

- 2.3.1 IDOM attended site on 3 February 2025 to validate the imported topsoil for clean cover use.

- 2.3.2 A layer of 500 mm of topsoil has been placed in the soft landscaping. During the IDOM inspection, three soil samples were taken from stockpiled material. During the depth check inspections of two trial holes, it was noted that soft landscaping consisted of soil placed directly on concrete (see Appendix 4). Since the concrete is part of a concealed bed, the risk to the end user has been mitigated as the pathway to the receptor has been broken.
- 2.3.3 Topsoil was imported from Landgate Farm, Landgate Lane, Bryn, Wigan, WN4 0EJ.
- 2.3.4 As per the GIR validation of the clean cover system, samples were collected and tested in a UKAS/MCERTS accredited laboratory for analysis of inter alia the following determinands (soil) includes:

<i>Arsenic</i>	<i>Selenium</i>	<i>pH</i>
<i>Cadmium</i>	<i>Copper</i>	<i>Sulphate Water Soluble</i>
<i>Chromium III</i>	<i>Nickel</i>	<i>Mercury</i>
<i>Chromium VI</i>	<i>Zinc</i>	<i>PAHs</i>
<i>Lead</i>	<i>Vanadium</i>	<i>Phenols Monohydric</i>
<i>TOC</i>	<i>Organic Matter</i>	<i>TPH CWG inc. BTEX & MTBE</i>
<i>Barium</i>	<i>Asbestos</i>	

- 2.3.5 The required acceptance criteria for material used in the clean cover system is set out in the GIR. The criteria are derived from Suitable for Use Levels (S4ULs) published in 2015 by LQM/CIEH for the most stringent criteria (residential with the potential for homegrown produce) and are also suitable to sustain healthy plant growth.

Table 3: Summary of topsoil screening against LQM/CIEH S4ULs. Full laboratory certificates are presented in Appendix 5.

CONTAMINANT	No of Tests	MAX (mg.kg ⁻¹)	MEAN (mg.kg ⁻¹)	SCREENING LEVEL (SL) (mg.kg ⁻¹)	No > SL*
HUMAN HEALTH RISK ASSESSMENT					
Asbestos in soil	3	NAD	NAD	Detected	0
pH	3	8.8	8.8	5 – 9	0
Arsenic	3	5.2	4.8	37	0
Barium	3	60.0	56.7	1300	0
Cadmium	3	0.3	0.3	11	0
Chromium (III)	3	9.6	9.3	910	0
Hexavalent Chromium	3	1.8	1.8	6	0
Lead	3	34.0	30.7	200	0
Mercury	3	0.3	0.3	40	0
Nickel	3	7.8	7.3	130	0
Selenium	3	1.0	1.0	250	0
Vanadium	3	11.0	10.5	410	0

TPH Aliphatic >EC ₅ - EC ₆	3	0.010	0.010	160	0
TPH Aliphatic >EC ₆ - EC ₈	3	0.010	0.010	530	0
TPH Aliphatic >EC ₈ - EC ₁₀	3	0.010	0.010	150	0
TPH Aliphatic >EC ₁₀ - EC ₁₂	3	1.00	1.00	760	0
TPH Aliphatic >EC ₁₂ - EC ₁₆	3	5.50	4.53	4300	0
TPH Aliphatic >EC ₁₆ - EC ₂₁	3	9.50	8.50	110000	0
TPH Aliphatic >EC ₂₁ - EC ₃₅	3	42.00	38.00	110000	0
TPH Aromatic >EC ₅ - EC ₇	3	0.010	0.010	300	0
TPH Aromatic >EC ₇ - EC ₈	3	0.010	0.010	660	0
TPH Aromatic >EC ₈ - EC ₁₀	3	0.020	0.020	190	0
TPH Aromatic >EC ₁₀ - EC ₁₂	3	1.00	1.00	380	0
TPH Aromatic >EC ₁₂ - EC ₁₆	3	5.60	3.20	660	0
TPH Aromatic >EC ₁₆ - EC ₂₁	3	15.00	11.67	930	0
TPH Aromatic >EC ₂₁ - EC ₃₅	3	61.00	40.00	1700	0
Benzene	3	0.005	0.005	0.37	0
Toluene	3	0.005	0.005	660	0
Ethylbenzene	3	0.005	0.005	260	0
Xylene	3	0.013	0.013	310	0
Naphthalene	3	0.05	0.05	13	0
Acenaphthylene	3	0.05	0.05	920	0
Acenaphthene	3	0.07	0.07	1100	0
Fluorene	3	0.05	0.05	860	0
Phenanthrene	3	0.38	0.35	440	0
Anthracene	3	0.07	0.07	11000	0
Fluoranthene	3	0.61	0.59	890	0
Pyrene	3	0.54	0.53	2000	0
Benzo(a)anthracene	3	0.27	0.24	13	0
Chrysene	3	0.32	0.31	27	0
Benzo(b)fluoranthene	3	0.39	0.34	3.7	0
Benzo(k)fluoranthene	3	0.13	0.13	100	0
Benzo(a)pyrene	3	0.27	0.25	3	0
Indeno(1,2,3-c,d)pyrene	3	0.17	0.15	41	0
Dibenzo(a,h)anthracene	3	0.05	0.05	0.3	0
Benzo(g,h,i)perylene	3	0.20	0.18	350	0
Phenol	3	1.0	1.0	380	0
PHYTOTOXICITY RISK ASSESSMENT					
Copper	3	27.0	25.7	200	0
Nickel	3	7.8	7.3	110	0
Zinc	3	73.0	71.3	300	0

- 2.3.6 Based on the laboratory results obtained from the testing of the site won material, subsoil and topsoil, IDOM can confirm the clean cover system meets the requirements stipulated within the GIR.
- 2.3.7 Photographic evidence of all validation locations has been provided in Appendix 4.

SECTION 3 CONCLUSIONS

- 3.1 The GIR report discusses the presence of asbestos within TP10 at 1.5 m bgl and the risk to the end users. The site has been covered with hardstanding, effectively eliminating any pathways between asbestos-containing soils and end-users. This measure has successfully mitigated the risk associated with asbestos.
- 3.2 IDOM have reviewed the information provided and are satisfied that no remediation was required other than materials management during. IDOM can confirm that the topsoil materials used for the clean cover in the soft landscaping areas comply with the specifications outlined in the remediation scheme detailed in the GIR.

APPENDIX 1 ▪ Waste Transfer Notes

Maher CN303134
W. MAHER & SONS LTD.
Rixton Old Hall, Manchester Road, Rixton, Warrington WA3 9EW
T: 0161 776 2200 E: enquiries@wmaherandsons.com

Bulk Excavation & Disposal • Ground Remediation
Quarried & Recycled Aggregates • Site Preparation

CONSIGNMENT NOTE

Customer: GM1 Date: 21/8/23
Loaded at: MAN
Delivered to: AGC
Driver: McGavin Veh. Reg: DE
Tick ☒ 1 x 8 wh. load: Off Site Material: RA
Tick ☐ 1 x 8 wh. load: Delivered Material: rock

Daywork / Hours Worked
Stewwork
Travel Time
Total Hours

Foreman or Agent's Signature: [Signature]

CONDITIONS OF SALE: It is essential that all written particulars entered above should be carefully checked by the consignee since this delivery note, once signed by the consignee, represents formal acceptance of the material in good order and condition and subsequent complaints cannot be accepted. All complaints whether in respect of material or circumstances of delivery must be made to the driver of the vehicle and be confirmed in writing direct to the company immediately. All materials and title to same remain the property of supplier until paid in full.

THIS IS NOT A WASTE TRANSFER NOTE Form MAHOD16 V.06 04/19

Maher CN 262144
W. MAHER & SONS LTD.
Rixton Old Hall, Manchester Road, Rixton, Warrington WA3 9EW
T: 0161 776 2200 E: enquiries@wmaherandsons.com

Bulk Excavation & Disposal • Ground Remediation
Quarried & Recycled Aggregates • Site Preparation

CONSIGNMENT NOTE

Customer: GM1 Date: 21/8/23
Loaded at: MAN
Delivered to: AGC
Driver: DE Veh. Reg: BXP
Tick ☐ 1 x 8 wh. load: Off Site Material: rock
Tick ☐ 1 x 8 wh. load: Delivered Material: rock

Daywork / Hours Worked
Stewwork
Travel Time
Total Hours

Foreman or Agent's Signature: [Signature]

CONDITIONS OF SALE: It is essential that all written particulars entered above should be carefully checked by the consignee since this delivery note, once signed by the consignee, represents formal acceptance of the material in good order and condition and subsequent complaints cannot be accepted. All complaints whether in respect of material or circumstances of delivery must be made to the driver of the vehicle and be confirmed in writing direct to the company immediately. All materials and title to same remain the property of supplier until paid in full.

THIS IS NOT A WASTE TRANSFER NOTE Form MAHOD16 V.06 04/19

Maher CN303140
W. MAHER & SONS LTD.
Rixton Old Hall, Manchester Road, Rixton, Warrington WA3 9EW
T: 0161 776 2200 E: enquiries@wmaherandsons.com

Bulk Excavation & Disposal • Ground Remediation
Quarried & Recycled Aggregates • Site Preparation

CONSIGNMENT NOTE

Customer: GM1 Date: 21/8/23
Loaded at: MAN
Delivered to: AGC
Driver: McGavin Veh. Reg: DE
Tick ☒ 1 x 8 wh. load: Off Site Material: RA
Tick ☐ 1 x 8 wh. load: Delivered Material: rock

Daywork / Hours Worked
Stewwork
Travel Time
Total Hours

Foreman or Agent's Signature: [Signature]

CONDITIONS OF SALE: It is essential that all written particulars entered above should be carefully checked by the consignee since this delivery note, once signed by the consignee, represents formal acceptance of the material in good order and condition and subsequent complaints cannot be accepted. All complaints whether in respect of material or circumstances of delivery must be made to the driver of the vehicle and be confirmed in writing direct to the company immediately. All materials and title to same remain the property of supplier until paid in full.

THIS IS NOT A WASTE TRANSFER NOTE Form MAHOD16 V.06 04/19

Maher CN 262145
W. MAHER & SONS LTD.
Rixton Old Hall, Manchester Road, Rixton, Warrington WA3 9EW
T: 0161 776 2200 E: enquiries@wmaherandsons.com

Bulk Excavation & Disposal • Ground Remediation
Quarried & Recycled Aggregates • Site Preparation

CONSIGNMENT NOTE

Customer: GM1 Date: 21/8/23
Loaded at: MAN
Delivered to: AGC
Driver: DE Veh. Reg: BXP
Tick ☐ 1 x 8 wh. load: Off Site Material: rock
Tick ☐ 1 x 8 wh. load: Delivered Material: rock

Daywork / Hours Worked
Stewwork
Travel Time
Total Hours

Foreman or Agent's Signature: [Signature]

CONDITIONS OF SALE: It is essential that all written particulars entered above should be carefully checked by the consignee since this delivery note, once signed by the consignee, represents formal acceptance of the material in good order and condition and subsequent complaints cannot be accepted. All complaints whether in respect of material or circumstances of delivery must be made to the driver of the vehicle and be confirmed in writing direct to the company immediately. All materials and title to same remain the property of supplier until paid in full.

THIS IS NOT A WASTE TRANSFER NOTE Form MAHOD16 V.06 04/19

Maher CN303135
W. MAHER & SONS LTD.
Rixton Old Hall, Manchester Road, Rixton, Warrington WA3 9EW
T: 0161 776 2200 E: enquiries@wmaherandsons.com

Bulk Excavation & Disposal • Ground Remediation
Quarried & Recycled Aggregates • Site Preparation

CONSIGNMENT NOTE

Customer: GM1 Date: 21/8/23
Loaded at: MAN
Delivered to: AGC
Driver: McGavin Veh. Reg: DE
Tick ☒ 1 x 8 wh. load: Off Site Material: RA
Tick ☐ 1 x 8 wh. load: Delivered Material: rock

Daywork / Hours Worked
Stewwork
Travel Time
Total Hours

Foreman or Agent's Signature: [Signature]

CONDITIONS OF SALE: It is essential that all written particulars entered above should be carefully checked by the consignee since this delivery note, once signed by the consignee, represents formal acceptance of the material in good order and condition and subsequent complaints cannot be accepted. All complaints whether in respect of material or circumstances of delivery must be made to the driver of the vehicle and be confirmed in writing direct to the company immediately. All materials and title to same remain the property of supplier until paid in full.

THIS IS NOT A WASTE TRANSFER NOTE Form MAHOD16 V.06 04/19

Maher CN303137
W. MAHER & SONS LTD.
Rixton Old Hall, Manchester Road, Rixton, Warrington WA3 9EW
T: 0161 776 2200 E: enquiries@wmaherandsons.com

Bulk Excavation & Disposal • Ground Remediation
Quarried & Recycled Aggregates • Site Preparation

CONSIGNMENT NOTE

Customer: GM1 Date: 21/8/23
Loaded at: MAN
Delivered to: AGC
Driver: McGavin Veh. Reg: DE
Tick ☒ 1 x 8 wh. load: Off Site Material: RA
Tick ☐ 1 x 8 wh. load: Delivered Material: rock

Daywork / Hours Worked
Stewwork
Travel Time
Total Hours

Foreman or Agent's Signature: [Signature]

CONDITIONS OF SALE: It is essential that all written particulars entered above should be carefully checked by the consignee since this delivery note, once signed by the consignee, represents formal acceptance of the material in good order and condition and subsequent complaints cannot be accepted. All complaints whether in respect of material or circumstances of delivery must be made to the driver of the vehicle and be confirmed in writing direct to the company immediately. All materials and title to same remain the property of supplier until paid in full.

THIS IS NOT A WASTE TRANSFER NOTE Form MAHOD16 V.06 04/19

Maher CN303133
W. MAHER & SONS LTD.
Rixton Old Hall, Manchester Road, Rixton, Warrington WA3 9EW
T: 0161 776 2200 E: enquiries@wmaherandsons.com

Bulk Excavation & Disposal • Ground Remediation
Quarried & Recycled Aggregates • Site Preparation

CONSIGNMENT NOTE

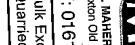
Customer: GM1 Date: 21/8/23
Loaded at: MAN
Delivered to: AGC
Driver: McGavin Veh. Reg: DE
Tick ☒ 1 x 8 wh. load: Off Site Material: RA
Tick ☐ 1 x 8 wh. load: Delivered Material: rock

Daywork / Hours Worked
Stewwork
Travel Time
Total Hours

Foreman or Agent's Signature: [Signature]

CONDITIONS OF SALE: It is essential that all written particulars entered above should be carefully checked by the consignee since this delivery note, once signed by the consignee, represents formal acceptance of the material in good order and condition and subsequent complaints cannot be accepted. All complaints whether in respect of material or circumstances of delivery must be made to the driver of the vehicle and be confirmed in writing direct to the company immediately. All materials and title to same remain the property of supplier until paid in full.

THIS IS NOT A WASTE TRANSFER NOTE Form MAHOD16 V.06 04/19

					CN 333437				
W. MAHER & SONS LTD. Pkinton Old Hall, Manchester Road, Rixton, Warrington WA5 6EW									
T: 0161 776 2200 E: enquiries@wmaherandsons.com									
Bulk Excavation & Disposal • Ground Remediation Quarried & Recycled Aggregates • Site Preparation									
CONSIGNMENT NOTE									
Customer:		G.M.I			Date:		25.8.05		
Loaded at:		M/c							
Delivered to:		TIP							
Driver:		LWS			Veh. Reg.:		WUOS.		
Tick ☒ 1 x 8 wh. load: Off Site		Material		P.A.					
Tick ☐ 1 x 8 wh. load: Delivered		Material							
Daywork / Skipwork		Hours Worked		Travel Time		Total Hours			
Foreman or Agent's Signature									
CONDITIONS OF SALE: It is essential that all written particulars entered above should be carefully checked by the consignee since this delivery is made on the basis of the statement signed by the consignor, representative of the consignor, and the material in good order and condition and no subsequent claims will be accepted in respect of material or circumstances of delivery must be made to the consignor in writing within 7 days of delivery. Driver of the vehicle and this to serve remain the property of supplier until paid in full. All materials and this to serve remain the property of supplier until paid in full.									
THIS IS NOT A WASTE TRANSFER NOTE									
Form MAH00176 V.06 04/15									

APPENDIX 2 ▪ Construction Photographs



Plate 1: May 4th, overview of a pit, with imported stone scatted on top.

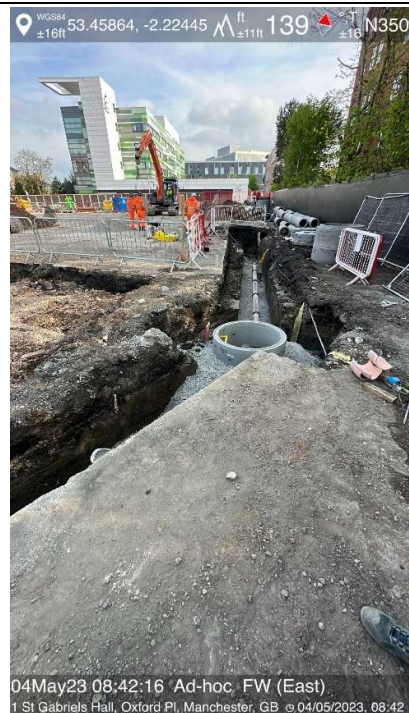


Plate 2: May 4th, utilities trench.



Plate 3: May 4th, utilities trench with some stone partially filling it.



Plate 4: May 4th, broken stone.



Plate 5: May 4th, broken stone in dug pits.



Plate 6: May 18th, lorry outside site.

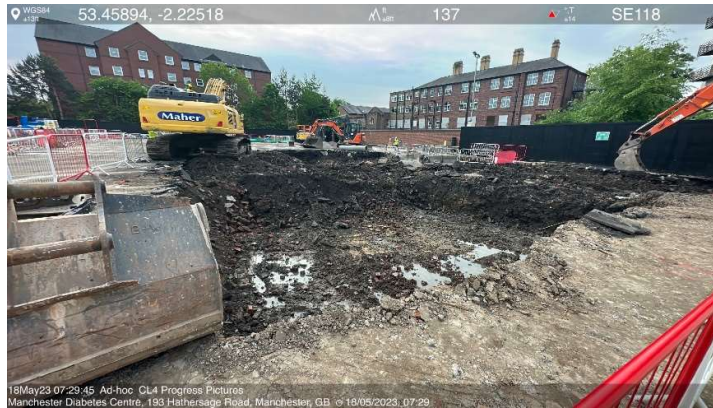


Plate 7: Dug pit with 360 digger adjacent.



Plate 8: May 18th, containing a stockpile of sand.

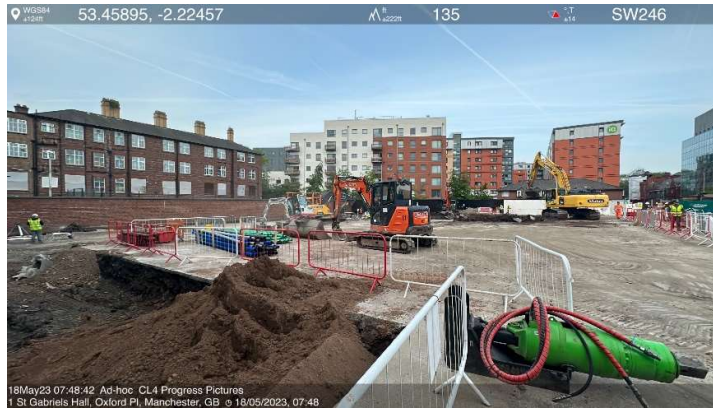


Plate 9: May 18th, plant adjacent to sand stockpile.

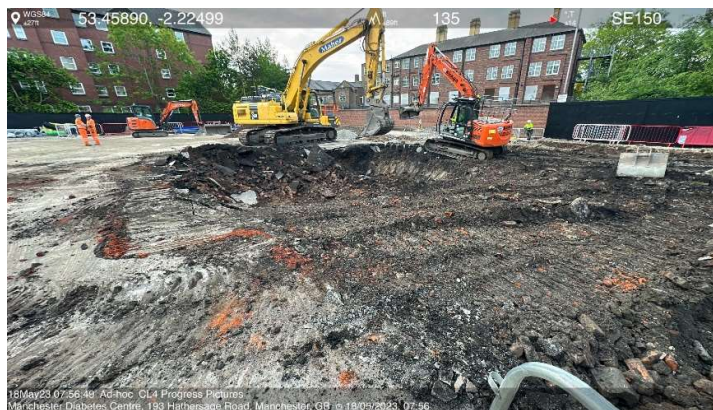


Plate 10: May 18th, plant adjacent to pit.



Plate 11: May 19th, overview of pit.



Plate 12: May 19th, overview of the pit.

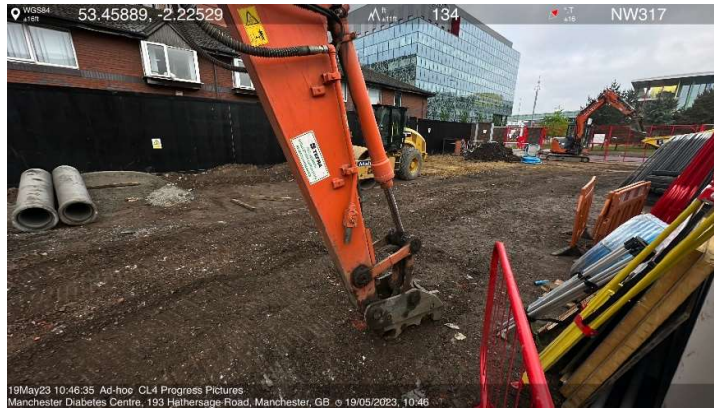


Plate 13: May 19th, digger bucket within sand.



Plate 14: May 31th, central area of site.



Plate 15: May 31th, concrete foundations.



Plate 16: May 31th, pit containing building materials.

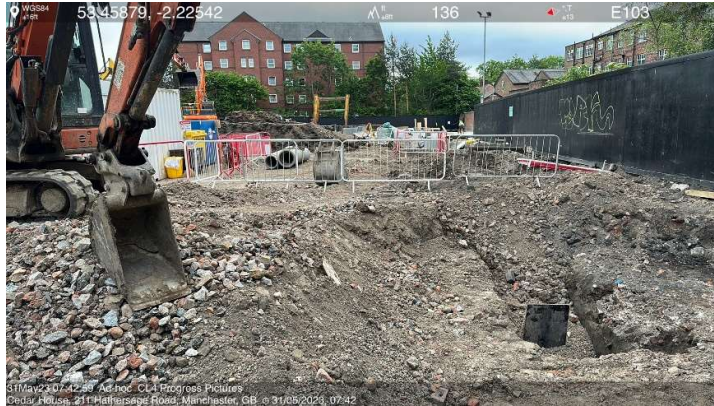


Plate 17: May 31th, pit with varied fill.



Plate 18: May 31th, 360 digger excavating material.



Plate 19: June 2nd, flat central area.



Plate 20: June 2nd, re-enforced utility trench.

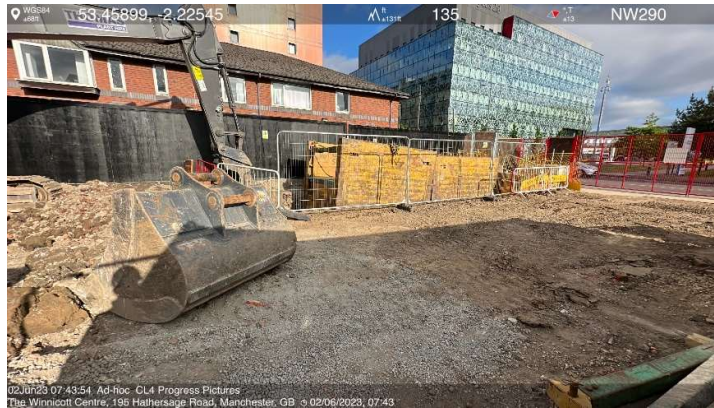


Plate 21: June 2nd, stockpile material over gravel and loam ground.



Plate 22: June 7th, stone stockpile.



Plate 23: June 7th, pipe inspection hole.

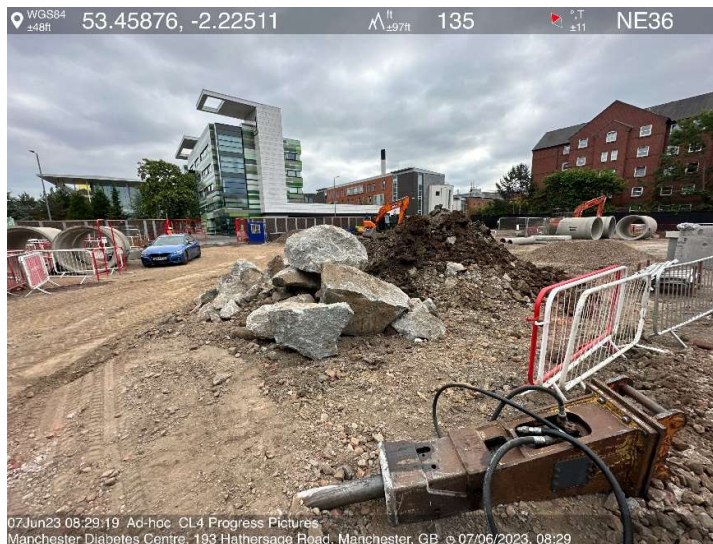
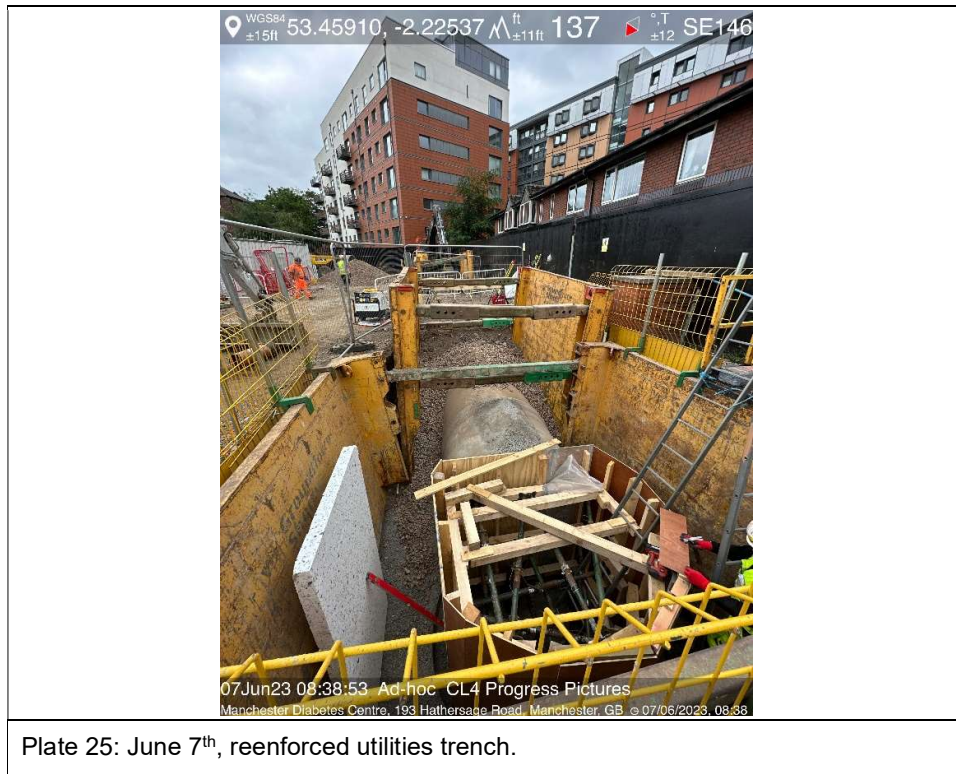


Plate 24: June 7th, two stockpiles; one of concrete crush, the other of loam.



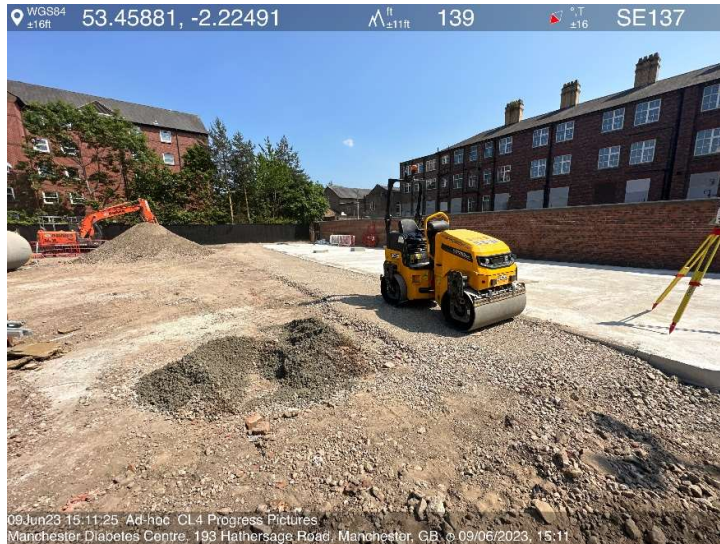


Plate 27: June 9th, flat area.



Plate 28: June 9th, flat area.



APPENDIX 3 ▪ Imported Topsoil Specification

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/10669
Issue Number: 1

Date: 06 November, 2024

Client: S.E.D. Services Ltd
Landgate Farm
Landgate Lane
Bryn
Wigan
UK
WN4 0EJ

Project Manager: James Wright
Project Name: SED Kirkby
Project Ref: Not specified
Order No: N/A
Date Samples Received: 29/10/24
Date Instructions Received: 04/11/24
Date Analysis Completed: 06/11/24

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 24/10669

Client Project Name: SED Kirkby

Client Project Ref: Not specified

Lab Sample ID	24/10669/1							Units	Limit of Detection	Method ref
Client Sample No	BS3882 Topsoil									
Client Sample ID	SED Kirkby									
Depth to Top										
Depth To Bottom										
Date Sampled	27-Oct-24									
Sample Type	SOIL									
Sample Matrix Code	4AE									
% Stones >10mm _A	<0.1							% w/w	0.1	A-T-044
pH _D ^{M#}	7.80							pH	0.01	A-T-031s
Cyanide (total) _A ^{M#}	2							mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC _A	<0.2							mg/kg	0.2	A-T-050s
Arsenic _D ^{M#}	6							mg/kg	1	A-T-024s
Cadmium _D ^{M#}	<0.5							mg/kg	0.5	A-T-024s
Copper _D ^{M#}	31							mg/kg	1	A-T-024s
Chromium _D ^{M#}	13							mg/kg	1	A-T-024s
Lead _D ^{M#}	112							mg/kg	1	A-T-024s
Mercury _D	<0.17							mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	9							mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1							mg/kg	1	A-T-024s
Zinc _D ^{M#}	113							mg/kg	5	A-T-024s

Envirolab Job Number: 24/10669

Client Project Name: SED Kirkby

Client Project Ref: Not specified

Lab Sample ID	24/10669/1							Units	Limit of Detection	Method ref
Client Sample No	BS3882 Topsoil									
Client Sample ID	SED Kirkby									
Depth to Top										
Depth To Bottom										
Date Sampled	27-Oct-24									
Sample Type	SOIL									
Sample Matrix Code	4AE									
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil ₀ #	NAD									A-T-045
Asbestos Matrix (visual) ₀	-									A-T-045
Asbestos Matrix (microscope) ₀	-									A-T-045
Asbestos ACM - Suitable for Water Absorption Test? ₀	N/A									A-T-045

Envirolab Job Number: 24/10669

Client Project Name: SED Kirkby

Client Project Ref: Not specified

Lab Sample ID	24/10669/1							Units	Limit of Detection	Method ref
Client Sample No	BS3882 Topsoil									
Client Sample ID	SED Kirkby									
Depth to Top										
Depth To Bottom										
Date Sampled	27-Oct-24									
Sample Type	SOIL									
Sample Matrix Code	4AE									
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02							mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.14							mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.11							mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.19							mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05							mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07							mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.17							mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.33							mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.08							mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.08							mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.25							mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	1.35							mg/kg	0.01	A-T-019s

Envirolab Job Number: 24/10669

Client Project Name: SED Kirkby

Client Project Ref: Not specified

Lab Sample ID	24/10669/1									
Client Sample No	BS3882 Topsoil									
Client Sample ID	SED Kirkby									
Depth to Top										
Depth To Bottom										
Date Sampled	27-Oct-24									
Sample Type	SOIL									
Sample Matrix Code	4AE									
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01							mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01							mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1							mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1							mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1							mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	5							mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	109							mg/kg	1	A-T-055s
Total Aliphatics _A	114							mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01							mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01							mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1							mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1							mg/kg	1	A-T-055s
Aro >C12-C16 _A	8							mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	22							mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	41							mg/kg	1	A-T-055s
Total Aromatics _A	71							mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	185							mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01							mg/kg	0.01	A-T-022s
MTBE _A [#]	<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 client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
- 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.
- 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.
- If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
- Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

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 “D” on Asbestos	Analysis performed on a dried aliquot of sample provided.
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
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: 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

“Trace Asbestos Identified” will be reported if there is not enough present to verify the type.

Quantification: Generally a 2 stage process including visual identification, hand picking and weighing, and fibre counting. 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. 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). “TRACE” will be reported as a quantification result.

PLEASE INFORM THE LABORATORY IF YOU WOULD LIKE THE STAGE 3 SEDIMENTATION PROCESS CARRIED OUT. Note this will be subcontracted.

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 calibration 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:	S.E.D. Services Ltd, Landgate Farm, Landgate Lane, Bryn, Wigan, UK, WN4 0EJ	Project No:	24/10669
Project:	SED Kirkby	Date Received:	04/11/2024 (am)
Clients Project No:		Cool Box Temperatures (°C):	13.8

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	24/10669/1
Client Sample No	BS3882 Topsoil
Client Sample ID/Depth	SED Kirkby
Date Sampled	27/10/24
A-T-019s	06/11/2024
A-T-022s	05/11/2024
A-T-024s	06/11/2024
A-T-031s	06/11/2024
A-T-042sTCN	05/11/2024
A-T-044	05/11/2024
A-T-045	05/11/2024
A-T-050s	06/11/2024
A-T-055s	05/11/2024
Calc-As Recd	05/11/2024

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



Certificate of Analysis

Client: STUART BALDWIN
(T283) SED SERVICES LTD
LANDGATE FARM
LANDGATE LANE
BRYN
WIGAN WN4 0EJ

Originator: SOIL

Lab ID: 59487 - 716997
Sample ID: SED-KIRKBY
Sample Weight: 846g

Date Received: 16/10/2024
Date Reported: 29/10/2024

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Multipurpose Grade

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F	Low-F
								Acid	Calc
		Unit	Result						
Texture:	Clay	% w/w	17						
	Silt	% w/w	23	See area of permitted soil textural					
	Sand	% w/w	60	classes in Fig. 1.					
	Textural Class		Sandy Loam	Y	Y	Y	Y	Y	Y
Organic Matter:		% w/w	6.4	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	0.7	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			8.1	Y	N	Y	Y	N	Y
Carbonate:		% w/w	4.4			Y			Y
Available	Nitrogen	% w/w	0.212	Y	Y	Y			
Plant	Phosphorus	mg/l	58.0 (4)*	Y	Y	Y	N	N	N
Nutrients:	Potassium	mg/l	1219.1 (6)*	Y	Y	Y			
	Magnesium	mg/l	198.2 (4)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	17.5	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	7.7						
Phytotoxic Contaminants:	Total Zinc	mg/kg	61.0	Y	Y	Y	Y	Y	Y
	Total Copper	mg/kg	23.5	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	19.2	Y	Y	Y	Y	Y	Y
Visible Contaminants:	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional Analysis:	Available Sodium	mg/l	216.4						
	Available Calcium	mg/l	1308.5						
	Conductivity	uS/cm	3030	Y					
Compliance:				Y	N	Y	N	N	N

Analytical Report

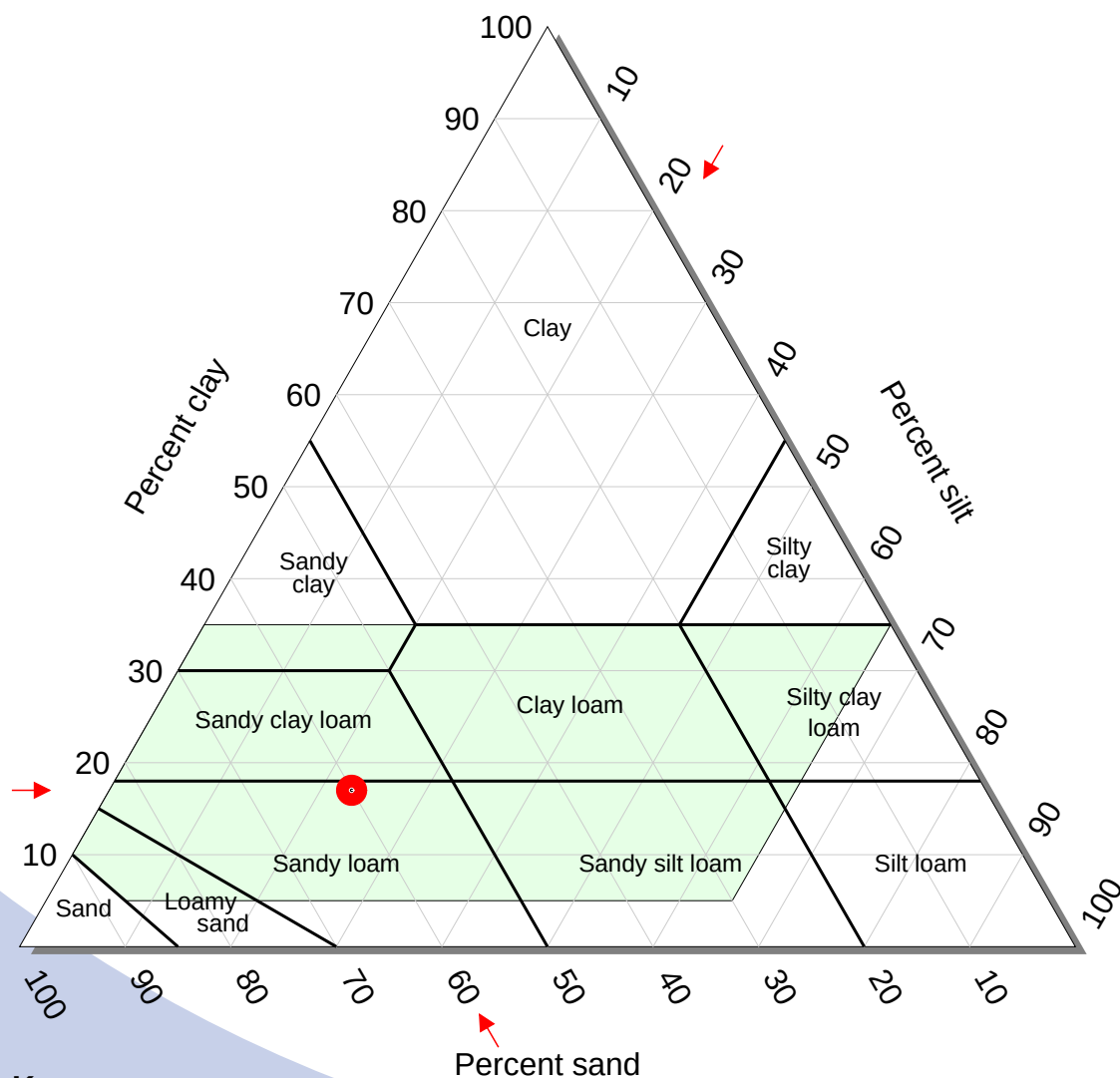
Client: STUART BALDWIN
(T283) SED SERVICES LTD
LANDGATE FARM
LANDGATE LANE
BRYN
WIGAN WN4 0EJ

Originator: SOIL

Lab ID: 59487 - 716997
Sample ID: SED-KIRKBY
Sample Weight: 846g

Date Received: 16/10/2024
Date Reported: 29/10/2024

Fig. 1. Textural Class: Sandy Loam (compliant)



Key



Area within which texture of topsoil is required to fall.

Analytical Notes

Final page must indicate end of report. Page 3

Accreditation and method details

NRM is a UKAS-accredited testing laboratory (No 2334), accredited to BS EN ISO 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF communique dated April 2017). <http://ilac.org/?download=120917>

NRM is accredited for particular determinands in specific matrices as set out in the laboratory's current UKAS schedule of accreditation https://www.ukas.com/wp-content/uploads/schedule_uplds/00002/2334Testing_Multiple.pdf

Accreditation applies to the following parameters in this report and is applicable to SOIL samples only. All other tests within this report are unaccredited.

Test	Analysis SOP	Method Description
Fluoride	JAS-487	Sulphuric acid extraction (1:10 ratio) and determination by ion selective electrode
Arsenic	JAS-510 / JAS-300	Aqua regia digest on hot block and determination by ICP-OES
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Molybdenum		
Mercury		
Nickel		
Vanadium		
Zinc		
Selenium	JAS-510 / JAS-455	Aqua regia digest on hot block and determination by AFS

Analysis Notes

Analysis is carried out on the air-dried (<30°C) and ground sample.

The results as reported relate only to the item(s) submitted for testing.

The results are presented on a dry matter basis.

Indices are derived solely from the numerical value and test result without reference to measurement uncertainty.

Document Control

This test report shall not be reproduced, except in full, without the written approval of the laboratory.

We cannot offer interpretation or opinions for results.

Sampling information

BS ISO 18512:2007 (Soil quality – Guidance on long and short-term storage of soil samples) states that for pH the period of stability and therefore holding time for a wet or 'fresh' soil sample is one week from sampling. Other determinants in the fresh sample may be considered stable for up to a month. Once the sample has been dried the sample may then be considered stable for up to 3 years. No records are maintained by NRM on date sampled or date dried so all samples within this report are considered not to be meeting the requirements of this BS / ISO. Consequently, all pH results given are those of the as-received sample and may not reflect the pH value of the sample when taken.

END OF REPORT

APPENDIX 4

- Soft Landscape Validation Location Plan
- Soft Landscape Validation Depth Check Photographs

Clear Barn Traps									
idbox	Barcode/Name	Common Name	end/box cm	length in	nest box	identification	density ml	quantity	status/box ml
106	COPIES 10606	Common Nighthawk	10-20	200-250	NO	NO PREVIOUS DATA, 10-10-06, 10-11-06, 10-12-06, 10-13-06, 10-14-06, 10-15-06, 10-16-06, 10-17-06, 10-18-06, 10-19-06, 10-20-06, 10-21-06, 10-22-06, 10-23-06, 10-24-06, 10-25-06, 10-26-06, 10-27-06, 10-28-06, 10-29-06, 10-30-06, 10-31-06, 11-01-06, 11-02-06, 11-03-06, 11-04-06, 11-05-06, 11-06-06, 11-07-06, 11-08-06, 11-09-06, 11-10-06, 11-11-06, 11-12-06, 11-13-06, 11-14-06, 11-15-06, 11-16-06, 11-17-06, 11-18-06, 11-19-06, 11-20-06, 11-21-06, 11-22-06, 11-23-06, 11-24-06, 11-25-06, 11-26-06, 11-27-06, 11-28-06, 11-29-06, 11-30-06, 12-01-06, 12-02-06, 12-03-06, 12-04-06, 12-05-06, 12-06-06, 12-07-06, 12-08-06, 12-09-06, 12-10-06, 12-11-06, 12-12-06, 12-13-06, 12-14-06, 12-15-06, 12-16-06, 12-17-06, 12-18-06, 12-19-06, 12-20-06, 12-21-06, 12-22-06, 12-23-06, 12-24-06, 12-25-06, 12-26-06, 12-27-06, 12-28-06, 12-29-06, 12-30-06, 12-31-06, 1-01-07, 1-02-07, 1-03-07, 1-04-07, 1-05-07, 1-06-07, 1-07-07, 1-08-07, 1-09-07, 1-10-07, 1-11-07, 1-12-07, 1-13-07, 1-14-07, 1-15-07, 1-16-07, 1-17-07, 1-18-07, 1-19-07, 1-20-07, 1-21-07, 1-22-07, 1-23-07, 1-24-07, 1-25-07, 1-26-07, 1-27-07, 1-28-07, 1-29-07, 1-30-07, 1-31-07, 2-01-07, 2-02-07, 2-03-07, 2-04-07, 2-05-07, 2-06-07, 2-07-07, 2-08-07, 2-09-07, 2-10-07, 2-11-07, 2-12-07, 2-13-07, 2-14-07, 2-15-07, 2-16-07, 2-17-07, 2-18-07, 2-19-07, 2-20-07, 2-21-07, 2-22-07, 2-23-07, 2-24-07, 2-25-07, 2-26-07, 2-27-07, 2-28-07, 2-29-07, 2-30-07, 2-31-07, 3-01-07, 3-02-07, 3-03-07, 3-04-07, 3-05-07, 3-06-07, 3-07-07, 3-08-07, 3-09-07, 3-10-07, 3-11-07, 3-12-07, 3-13-07, 3-14-07, 3-15-07, 3-16-07, 3-17-07, 3-18-07, 3-19-07, 3-20-07, 3-21-07, 3-22-07, 3-23-07, 3-24-07, 3-25-07, 3-26-07, 3-27-07, 3-28-07, 3-29-07, 3-30-07, 3-31-07, 4-01-07, 4-02-07, 4-03-07, 4-04-07, 4-05-07, 4-06-07, 4-07-07, 4-08-07, 4-09-07, 4-10-07, 4-11-07, 4-12-07, 4-13-07, 4-14-07, 4-15-07, 4-16-07, 4-17-07, 4-18-07, 4-19-07, 4-20-07, 4-21-07, 4-22-07, 4-23-07, 4-24-07, 4-25-07, 4-26-07, 4-27-07, 4-28-07, 4-29-07, 4-30-07, 4-31-07, 5-01-07, 5-02-07, 5-03-07, 5-04-07, 5-05-07, 5-06-07, 5-07-07, 5-08-07, 5-09-07, 5-10-07, 5-11-07, 5-12-07, 5-13-07, 5-14-07, 5-15-07, 5-16-07, 5-17-07, 5-18-07, 5-19-07, 5-20-07, 5-21-07, 5-22-07, 5-23-07, 5-24-07, 5-25-07, 5-26-07, 5-27-07, 5-28-07, 5-29-07, 5-30-07, 5-31-07, 6-01-07, 6-02-07, 6-03-07, 6-04-07, 6-05-07, 6-06-07, 6-07-07, 6-08-07, 6-09-07, 6-10-07, 6-11-07, 6-12-07, 6-13-07, 6-14-07, 6-15-07, 6-16-07, 6-17-07, 6-18-07, 6-19-07, 6-20-07, 6-21-07, 6-22-07, 6-23-07, 6-24-07, 6-25-07, 6-26-07, 6-27-07, 6-28-07, 6-29-07, 6-30-07, 6-31-07, 7-01-07, 7-02-07, 7-03-07, 7-04-07, 7-05-07, 7-06-07, 7-07-07, 7-08-07, 7-09-07, 7-10-07, 7-11-07, 7-12-07, 7-13-07, 7-14-07, 7-15-07, 7-16-07, 7-17-07, 7-18-07, 7-19-07, 7-20-07, 7-21-07, 7-22-07, 7-23-07, 7-24-07, 7-25-07, 7-26-07, 7-27-07, 7-28-07, 7-29-07, 7-30-07, 7-31-07, 8-01-07, 8-02-07, 8-03-07, 8-04-07, 8-05-07, 8-06-07, 8-07-07, 8-08-07, 8-09-07, 8-10-07, 8-11-07, 8-12-07, 8-13-07, 8-14-07, 8-15-07, 8-16-07, 8-17-07, 8-18-07, 8-19-07, 8-20-07, 8-21-07, 8-22-07, 8-23-07, 8-24-07, 8-25-07, 8-26-07, 8-27-07, 8-28-07, 8-29-07, 8-30-07, 8-31-07, 9-01-07, 9-02-07, 9-03-07, 9-04-07, 9-05-07, 9-06-07, 9-07-07, 9-08-07, 9-09-07, 9-10-07, 9-11-07, 9-12-07, 9-13-07, 9-14-07, 9-15-07, 9-16-07, 9-17-07, 9-18-07, 9-19-07, 9-20-07, 9-21-07, 9-22-07, 9-23-07, 9-24-07, 9-25-07, 9-26-07, 9-27-07, 9-28-07, 9-29-07, 9-30-07, 9-31-07, 10-01-07, 10-02-07, 10-03-07, 10-04-07, 10-05-07, 10-06-07, 10-07-07, 10-08-07, 10-09-07, 10-10-07, 10-11-07, 10-12-07, 10-13-07, 10-14-07, 10-15-07, 10-16-07, 10-17-07, 10-18-07, 10-19-07, 10-20-07, 10-21-07, 10-22-07, 10-23-07, 10-24-07, 10-25-07, 10-26-07, 10-27-07, 10-28-07, 10-29-07, 10-30-07, 10-31-07, 11-01-07, 11-02-07, 11-03-07, 11-04-07, 11-05-07, 11-06-07, 11-07-07, 11-08-07, 11-09-07, 11-10-07, 11-11-07, 11-12-07, 11-13-07, 11-14-07, 11-15-07, 11-16-07, 11-17-07, 11-18-07, 11-19-07, 11-20-07, 11-21-07, 11-22-07, 11-23-07, 11-24-07, 11-25-07, 11-26-07, 11-27-07, 11-28-07, 11-29-07, 11-30-07, 11-31-07, 12-01-07, 12-02-07, 12-03-07, 12-04-07, 12-05-07, 12-06-07, 12-07-07, 12-08-07, 12-09-07, 12-10-07, 12-11-07, 12-12-07, 12-13-07, 12-14-07, 12-15-07, 12-16-07, 12-17-07, 12-18-07, 12-19-07, 12-20-07, 12-21-07, 12-22-07, 12-23-07, 12-24-07, 12-25-07, 12-26-07, 12-27-07, 12-28-07, 12-29-07, 12-30-07, 12-31-07	7	Acadian	active

[illegible]

Hedge Floating								
Index	Undername	Countername	MTM (in m)	Margin in	Notional	Specification	Delivery	Quantity
Crude	Indigo/Indogrid	Commodities/Indo	7	100 000	rough	both hedge and trading; then sale of floating oil; Venezuela purchases oil and then, after arbitrage, sells to Indogrid; ready	7	12m

[illegible]

1. The first step in the process of developing a business plan is to conduct a market analysis.
2. The second step is to determine the company's mission and vision.
3. The third step is to identify the company's target market.
4. The fourth step is to determine the company's competitive advantage.
5. The fifth step is to develop a marketing strategy.
6. The sixth step is to develop a financial plan.
7. The seventh step is to develop an operational plan.
8. The eighth step is to develop a human resources plan.
9. The ninth step is to develop a risk management plan.
10. The tenth step is to develop a legal plan.

THE DRAWING WAS PLOTTED ON				
2/8/2024				
REVISION HISTORY				
DATE	REV	THRU	DESCRIPTION	BY
20/01/24	004		Arranged work to levels / arrangement on the area of site following coordination with engineer	MRB
26/02/24	006		Revised up to date the with comments	MRB
26/02/24	005		Revised on the release	MRB

KEY	
SCHEDULED TRANSACTIONS	
	PLU HAVING APPLIED TO THE SCHEDULE
SPLIT FINISHES	
	PLU HAVING SPLIT PLAN TO END
	PLU HAVING SPLIT PLAN TO END
	NO SPLIT PLAN
	NO SPLIT PLAN TO END
	NO SPLIT PLAN TO END
	NO SPLIT PLAN TO END
	NO SPLIT PLAN TO END



Activity 1.8: **My own life**

Write in English:

Q1. **What is your name?**

Q2. **What is your age?**

Q3. **What is your gender?**

Q4. **What is your date of birth?**

Q5. **What is your phone number?**

Q6. **What is your email address?**

Q7. **What is your favorite color?**

Q8. **What is your favorite food?**

Q9. **What is your favorite sport?**

Q10. **What is your favorite movie?**

Q11. **What is your favorite book?**

Q12. **What is your favorite animal?**

Q13. **What is your favorite plant?**

Q14. **What is your favorite flower?**

Q15. **What is your favorite fruit?**

Q16. **What is your favorite vegetable?**

Q17. **What is your favorite drink?**

Q18. **What is your favorite season?**

Q19. **What is your favorite month?**

Q20. **What is your favorite day of the week?**

Q21. **What is your favorite time of day?**

Q22. **What is your favorite place?**

Q23. **What is your favorite city?**

Q24. **What is your favorite country?**

Q25. **What is your favorite continent?**

Q26. **What is your favorite planet?**

Q27. **What is your favorite star?**

Q28. **What is your favorite galaxy?**

Q29. **What is your favorite constellation?**

Q30. **What is your favorite constellation?**

	800 Loyola University Chicago 773-508-0000 1100 W. Madison St. Chicago, IL 60607	Loyola University Chicago 1100 W. Madison St. Chicago, IL 60607 773-508-0000	Loyola University Chicago 1100 W. Madison St. Chicago, IL 60607 773-508-0000
---	---	---	---

Client
BRUNNWOOD

Project
**CITYLABS 4.0
MANCHESTER**

Ordering Title

SOFTWARES			
Created by MDM	Checked by ST	Code 1150	Sheet Size A
Project Name L025	Company LYR	1 more 99-EX.00-D-L-003001	2 more A
Work Stage Stage 5	Method AI	3 more A	4 more CRO



Plate 1: Depth check at MTH101, displaying a clean cover depth of 530 mm.



Plate 2: Information plating card of MTP101, adjacent to the hole.



Plate 3: Look downhole at MTP101, displaying concrete and stone at the base.



Plate 4: Contextual overview of MTH101.



Plate 5: Depth check at MTH102, displaying a depth of 480 mm.



Plate 6: Information card from MTH102.



Plate 7: Look downhole at MTH102, displaying a concrete base.



Plate 8: Contextual overview of MTH102.

APPENDIX 5

- Laboratory Certificates
- Soil Screening Summary

Merebrook
1 St Anns Street
Manchester
M2 7LR

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

e: coliveira@idom.com
sjames@idom.com

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

Analytical Report Number : 25-004916

Project / Site name:	City Labs 4	Samples received on:	04/02/2025
Your job number:	22579B	Samples instructed on/ Analysis started on:	04/02/2025
Your order number:	25-2-FDO-LABS	Analysis completed by:	07/02/2025
Report Issue Number:	1	Report issued on:	07/02/2025
Samples Analysed:	3 soil samples		

Signed: 

Joanna Wawrzeczko
Senior 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
	air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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: 25-004916

Project / Site name: City Labs 4

Your Order No: 25-2-FDO-LABS

Lab Sample Number				441891	441892	441893
Sample Reference				MSP101	MSP102	MSP103
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				0.05	0.05	0.05
Date Sampled				03/02/2025	03/02/2025	03/02/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	22	18
Total mass of sample received	kg	0.1	NONE	0.6	0.6	0.6

Asbestos

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

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.8	8.8	8.7
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	290	280	280
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.146	0.141	0.139
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	146	141	139
Organic Matter (automated)	%	0.1	MCERTS	8.5	7.1	6
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	4.9	4.1	3.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
----------------------------	-------	---	--------	-------	-------	-------

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.07	0.07	0.06
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.38	0.34	0.32
Anthracene	mg/kg	0.05	MCERTS	0.07	0.07	0.07
Fluoranthene	mg/kg	0.05	MCERTS	0.61	0.61	0.55
Pyrene	mg/kg	0.05	MCERTS	0.53	0.54	0.52
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.23	0.27	0.23
Chrysene	mg/kg	0.05	MCERTS	0.31	0.32	0.3
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.32	0.39	0.31
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.13	0.13	0.13
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.24	0.27	0.24
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.13	0.17	0.15
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.17	0.2	0.17

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	3.18	3.36	3.11
-----------------------------	-------	-----	-----------	------	------	------

Analytical Report Number: 25-004916

Project / Site name: City Labs 4

Your Order No: 25-2-FDO-LABS

Lab Sample Number				441891	441892	441893
Sample Reference				MSP101	MSP102	MSP103
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				0.05	0.05	0.05
Date Sampled				03/02/2025	03/02/2025	03/02/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	5.2	4.4	4.9
Barium (aqua regia extractable)	mg/kg	1	MCERTS	59	51	60
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.2	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	9.6	8.9	9.4
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	9.9	9.3	9.8
Copper (aqua regia extractable)	mg/kg	1	MCERTS	25	25	27
Lead (aqua regia extractable)	mg/kg	1	MCERTS	34	27	31
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.8	7.1	7.1
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	11	9.6	11
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	73	69	72

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	5.5	3.5	4.6
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	9.5
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	42	33	39
TPHCWG - Aliphatic >EC35 - EC40 _{EH_CU_1D_AL}	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	47	36	53
TPHCWG - Aliphatic >EC5 - EC40 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	47	36	53

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	5.6
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10	15
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	31	28	61
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	13	13	24
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	31	28	81
TPHCWG - Aromatic >EC5 - EC40 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	44	41	100

TPH Total >EC5 - EC40 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	91	77	160
--	-------	----	------	----	----	-----

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 25-004916

Project / Site name: City Labs 4

* 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 *
441891	MSP101	None Supplied	0.05	Brown loam and sand with gravel
441892	MSP102	None Supplied	0.05	Brown loam and sand with gravel
441893	MSP103	None Supplied	0.05	Brown loam and sand with gravel

Analytical Report Number : 25-004916

Project / Site name: City Labs 4

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
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.	L019B	D	NONE
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	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazine followed by colorimetry	In-house method	L080-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS

Analytical Report Number : 25-004916

Project / Site name: City Labs 4

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' 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.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

BASIC STATISTICAL RESULTS SUMMARY



Site Name City Labs 4.0								
Project Number 22579b								
Sample Location		MSP101	MSP102	MSP103				
Depth		0.05	0.05	0.05				
Determinand				Number of Tests	Maximum (mg.kg ⁻¹)	Mean (mg.kg ⁻¹)	Screening Level (mg.kg ⁻¹)	No. > SL
Arsenic	5.2	4.4	4.9	3	5.2	4.833	37	0
Barium	59	51	60	3	60	56.667	1300	0
Cadmium	0.3	0.2	0.3	3	0.3	0.267	11	0
Hexavalent Chromium	1.8	1.8	1.8	3	1.8	1.800	6	0
Chromium III	9.6	8.9	9.4	3	9.6	9.300	910	0
Chromium (total)	9.9	9.3	9.8	3	9.9	9.667	-	-
Copper	25	25	27	3	27	25.667	2400	0
Lead	34	27	31	3	34	30.667	200	0
Mercury	0.3	0.3	0.3	3	0.3	0.300	40	0
Nickel	7.8	7.1	7.1	3	7.8	7.333	130	0
Selenium	1	1	1	3	1	1.000	250	0
Vanadium	11	9.6	11	3	11	10.533	410	0
Zinc	73	69	72	3	73	71.333	3700	0
pH	8.8	8.8	8.7	3	8.8	8.767	9	0
Water Soluble SO4 (BRE SD 2:1 Leach Equivalent) g.l ⁻¹	0.146	0.141	0.139	3	0.146	0.142	-	-
% Organic matter	8.5	7.1	6	3	8.5	7.200	-	-
% TOC	4.9	4.1	3.5	3	4.9	4.167	-	-
Aliphatic C5-C6	0.01	0.01	0.01	3	0.01	0.010	160	0
Aliphatic C6-C8	0.01	0.01	0.01	3	0.01	0.010	530	0
Aliphatic C8-C10	0.01	0.01	0.01	3	0.01	0.010	150	0
Aliphatic C10-C12	1	1	1	3	1	1.000	760	0
Aliphatic C12-C16	5.5	3.5	4.6	3	5.5	4.533	4300	0
Aliphatic C16-C21	8	8	9.5	3	9.5	8.500	110000	0
Aliphatic C21-C35	42	33	39	3	42	38.000	110000	0
Aliphatic C35-C40	10	10	10	3	10	10.000	-	-
Aliphatic C5-C35	47	36	53	3	53	45.333	-	-
Aromatic C5-C7	0.01	0.01	0.01	3	0.01	0.010	300	0
Aromatic C7-C8	0.01	0.01	0.01	3	0.01	0.010	660	0
Aromatic C8-C10	0.02	0.02	0.02	3	0.02	0.020	190	0
Aromatic C10-C12	1	1	1	3	1	1.000	380	0
Aromatic C12-C16	2	2	5.6	3	5.6	3.200	660	0
Aromatic C16-C21	10	10	15	3	15	11.667	930	0
Aromatic C21-C35	31	28	61	3	61	40.000	1700	0
Aromatic C35-C40	13	13	24	3	24	16.667	-	-
Aromatic C5-C35	31	28	81	3	81	46.667	-	-
TPH Total C5 - C40	91	77	160	3	160	109.333	-	-
Benzene	5	5	5	-	-	-	-	-
Toluene	5	5	5	-	-	-	-	-
Ethylbenzene	5	5	5	-	-	-	-	-
p & m-xylene	8	8	8	-	-	-	-	-
o-xylene	5	5	5	-	-	-	-	-
MTBE	5	5	5	-	-	-	-	-
Benzene	0.005	0.005	0.005	3	0.005	0.005	0.37	0
Toluene	0.005	0.005	0.005	3	0.005	0.005	660	0
Ethylbenzene	0.005	0.005	0.005	3	0.005	0.005	260	0
total xylene	0.013	0.013	0.013	3	0.013	0.013	310	0
MTBE	0.005	0.005	0.005	3	0.005	0.005	-	-
Naphthalene	0.05	0.05	0.05	3	0.05	0.050	13	0
Acenaphthylene	0.05	0.05	0.05	3	0.05	0.050	920	0
Acenaphthene	0.07	0.07	0.06	3	0.07	0.067	1100	0
Fluorene	0.05	0.05	0.05	3	0.05	0.050	860	0
Phenanthrene	0.38	0.34	0.32	3	0.38	0.347	440	0
Anthracene	0.07	0.07	0.07	3	0.07	0.070	11000	0
Fluoranthene	0.61	0.61	0.55	3	0.61	0.590	890	0
Pyrene	0.53	0.54	0.52	3	0.54	0.530	2000	0
Benzo(a)anthracene	0.23	0.27	0.23	3	0.27	0.243	13	0
Chrysene	0.31	0.32	0.3	3	0.32	0.310	27	0
Benzo(b)fluoranthene	0.32	0.39	0.31	3	0.39	0.340	3.7	0
Benzo(k)fluoranthene	0.13	0.13	0.13	3	0.13	0.130	100	0
Benzo(a)pyrene	0.24	0.27	0.24	3	0.27	0.250	3	0
Indeno(1,2,3-c,d)pyrene	0.13	0.17	0.15	3	0.17	0.150	41	0
Dibenzo(a,h)anthracene	0.05	0.05	0.05	3	0.05	0.050	0.3	0
Benzo(g,h,i)perylene	0.17	0.2	0.17	3	0.2	0.180	350	0
Total PAH - USEPA 16	3.18	3.36	3.11	3	3.36	3.217	-	-
Phenol - Monohydric	< 1.	< 1.	< 1.	3	1	1.000	380	0

IDOM

IDOM Cromford Mills, Mill Lane, Matlock, Derbyshire DE4 3RQ
t +44 (0)1773 829 988 e info.derbyshire@idom.com **idom.com**
Registered in England No. 02740216 Registered office: as above